NASA
Technical
Paper
2249

February 1984

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INTRODUCTION

An attached-flow maneuver-wing concept for supersonic speeds has been developed, experimentally verified, and reported in references 1, 2, and 3. This maneuver-wing concept focuses on the flow in the crossplane which is normal to the longitudinal axis. As pointed out by Jones in reference 4, the crossflow velocity field plays the dominant role in establishing the flow-field characteristics of highly swept wings. For maneuvering conditions, the crossflow velocity field on the wing upper surface forms into subsonic and supersonic regions which are highly nonlinear flows. Consequently, the methods used to analyze and/or design for mixed crossflow regions must properly account for these nonlinearities. (For example, see ref. 5.)

The attached-flow maneuver-wing concept for supersonic high-lift conditions applies camber and thickness to control the upper-surface crossflow. Specifically, the upper-surface crossflow is expanded around the wing leading edge to supercritical conditions and then is compressed isentropically to subcritical-crossflow conditions. Shockless, attached flow is maintained over the entire wing surface to minimize drag. To prove the concept, an isolated conical wing (frequently referred to herein as wing alone) was designed to achieve a spanwise section lift coefficient of 0.457 at a Mach number M of 1.62 and at an angle of attack α of 10°. An experimental program (ref. 2) was conducted on the isolated conical wing and the design goals were realized. The further development of the attached-flow maneuver-wing concept for supersonic high-lift conditions focused on body and canard effects on the conical wing of reference 2 and on the nonconical isolated wing of reference 3.

The purpose of this paper is to report the results of the experimental test program which addressed the effects of a body and canards on the performance of the isolated conical wing. The conical-wing model was modified to accept a cone-cylinder body and canards. The canards had 10° of dihedral and were located above the wing plane. The cambered wing-body configuration was tested with two different forebody shapes, and the cambered wing-body-canard configuration was tested with three canard incidence angles. This same test matrix, but without one forebody shape, was repeated for an uncambered (flat) wing which had the same planform and essentially the same thickness distribution as the cambered wing. Longitudinal force and moment data and static-pressure data were obtained in the Langley Unitary Plan Wind Tunnel (ref. 6) at a Mach number of 1.62 and a Reynolds number of 2.0×10^6 per foot. The angle of attack ranged from -2° to 12°, but most of the cambered-wing data were taken between 8° and 12°, inclusive, and most of the uncambered-wing data were taken between 2° and 9°, inclusive. Photographs of oil-flow patterns on the upper surface for the canard-on and canard-off configurations were obtained at $\alpha \approx 10°$ for the cambered-wing models and at $\alpha \approx 6°$ for the uncambered-wing models.

SYMBOLS

The moment reference point is 22.88 in. behind the apex of the body on the centerline and 0.75 in. below the model reference line. Symbols in parentheses are used in the appendix tables.

	(CA)	axial-force coefficient with wing-base and body-cavity axial force removed, $\frac{\text{Axial force}}{q_\infty S}$
	(CAB)	axial-force coefficient of wing base, outboard of 21-percent semispan
	(CAC)	axial-force coefficient of body cavity, inboard of 21-percent semispan
C_D	(CD)	drag coefficient with wing base and body cavity drag removed, $\frac{\text{Drag}}{q_\infty S}$
	(CDB)	drag coefficient of wing base, outboard of 21-percent semispan
	(CDC)	drag coefficient of body cavity, inboard of 21-percent semispan
$C_{D,o}$		drag coefficient at zero lift for uncambered wing
ΔC_D		incremental drag-due-to-lift coefficient, $C_D - C_{D,o}$
$\frac{\Delta C_D}{\beta C_L^2}$		linear-theory lifting-performance parameter
C_L	(CL)	lift coefficient, $\frac{\text{Lift}}{q_\infty S}$
C_m	(CM)	pitching-moment coefficient, $\frac{\text{Pitching moment}}{q_\infty S\ell}$
	(CN)	normal-force coefficient, $\frac{\text{Normal force}}{q_\infty S}$
C_p	(CP)	local pressure coefficient, $\frac{p - p_\infty}{q_\infty}$
	(HO)	free-stream stagnation pressure
L/D		lift-drag ratio
ℓ		model reference length (wing centerline chord length), 24 in.
M	(MACH)	free-stream Mach number

p		local static pressure
p_∞	(P)	free-stream static pressure
q_∞	(Q)	free-stream dynamic pressure
R	(RE/FT.)	free-stream Reynolds number per foot
	(RE/M)	free-stream Reynolds number per meter (see appendix C)
r		body radius
S		reference wing area, 2.285 ft^2
t/c		thickness-to-chord ratio
x	(X)	longitudinal distance measured from wing apex, in.
y	(Y)	spanwise distance measured from model centerline, in.
z	(Z)	vertical distance measured from model reference plane, in.
α	(ALPHA)	angle of attack, deg
β		$= \sqrt{M^2 - 1}$
	(BETA)	sideslip angle (used in appendix A), deg
δ_c		canard incidence angle, deg; positive with trailing edge down
η	(ETA)	conical coordinate, $\frac{y}{y_{LE}}$
Λ		leading-edge sweep angle, deg

Subscript:

LE	leading edge

Abbreviations:

L.E.	leading edge
PT	point
T.E.	trailing edge

WIND-TUNNEL MODELS

The cambered-wing model is a clipped delta ($\Lambda = 57°$) with approximately the first 60 percent of the wing having a conical geometry, which produced an attached supercritical expansion and shockless recompression on the upper surface at the design point of $\alpha = 10°$ and $M = 1.62$. The conical-flow, nonlinear potential method of reference 5 was used to design the cambered wing, and the details of this

design are presented in appendix A of reference 2. Briefly, the design procedure consisted of initially examining pressure distributions and lifting forces produced by a parametric variation of wing thickness, camber, and angle of attack. From this parametric study, a geometry was selected which produced the desired spanwise section lift coefficient of approximately 0.480 at an angle of attack of 10° and a Mach number of 1.62; however, a weak crossflow shock remained on the upper surface. At this point in the design procedure, smooth upper-surface geometry changes were made in the vicinity of the crossflow shock until the shock was totally eliminated. The design section lift coefficient was 0.457. A smooth surface fairing was made from the conical geometry to a constant-thickness geometry, and the wing tip was truncated to keep wing area and span within tunnel test-section limits. The resulting thick trailing edge was recessed.

The flat wing employed the same planform and essentially the same thickness distribution as that of the cambered wing, and it was tested to obtain a comparison set of pressure data containing crossflow shocks and baseline force and moment results.

Figure 1 shows the model layout of the wing-body-canard configuration. Figure 2 shows the spanwise section shapes for the conical portion of the flat wing and cambered wing, and the ordinates for these conical spanwise sections are presented in tables I and II, respectively. In order to verify geometric accuracy prior to testing, both wings were inspected with a numerical-recording measuring machine. The models were within 0.004 in. of the design surface shape over the first 10 percent of the local wing chord.

An axisymmetric body was designed to fit the previously tested wing-alone models. A constant radius of 2.5 in. was selected for the cylindrical portion of the body. The basic forebody nose (nose 1) was a 20° cone blending to a 4° frustrum, to provide a canard mounting surface, and finally fairing into the constant-radius cylinder. To obtain additional forebody effects, a second forebody nose (nose 2) was designed with an increased radius. The longitudinal radius distributions for each of these two forebodies are shown in figure 3 and the ordinates are contained in table III.

Canards were tested only on the first forebody (nose 1) and were mounted as shown in figure 1. The leading-edge sweep angle is 57° and the dihedral angle is 10°. The canard airfoil has a biconvex section that is 5 percent thick. The canard has a linear twist distribution that resulted in a 2.5° washout at the tip. The canard incidence angles were 0°, -5°, and -10°, relative to the wing reference plane. The detailed layout of the canard is shown in figure 4.

Photographs of the cambered wing-body-canard model are shown in figures 5(a) and (b). A photograph of the cambered wing-alone model (ref. 2) is shown in figure 5(c) for comparison. Note that for the wing-alone test, the balance housing is confined to the lower surface.

INSTRUMENTATION

Both the cambered and the uncambered wings had 79 pressure taps in the isolated-wing test. (See ref. 2.) However, the addition of the body for the present study covered 8 of the original 79 pressure taps. Therefore, each wing in the present test was instrumented with 71 pressure taps located as shown in figure 6, and the corresponding coordinates are presented in table IV. For ease of installation, the upper-

surface orifices were located on the left side of the model, and the lower-surface orifices were located on the right side of the model. The first two rows at $x/\ell = 0.450$ and 0.550 were located in the conical-geometry region of the wing. The row at 0.450 was originally used for checking the conicity of the flow in the wing-alone test. The rows of orifices at values of x/ℓ greater than 0.6 were included to obtain nonconical pressure data. To determine wing base drag, four taps were located in the recessed base of the wing. The body-cavity static pressure was measured with pressure tubes located inside the model in the vicinity of the balance.

Aerodynamic forces and moments were measured by a six-component strain-gage balance that was housed within the model. The balance was attached to a sting which, in turn, was rigidly fastened to the model support system of the tunnel. Angle of attack was measured with an accelerometer located in the model support system.

TEST INFORMATION

The tests were conducted in the low Mach number test section of the Langley Unitary Plan Wind Tunnel, which is a variable Mach number, variable-pressure, continuous-flow tunnel. The test section is approximately 4 ft square. (See ref. 6 for a more-detailed description of this facility.)

Tests were conducted at $M = 1.62$, a Reynolds number of 2.0×10^6 per foot, a stagnation temperature of 125°F, and a stagnation pressure of 7.5 psia. Angle of attack ranged from approximately -2° to 12°, but most of the cambered-wing data were taken between 8° and 12°, inclusive, and most of the flat-wing data were taken between 2° and 9°, inclusive. The measured angle of attack was corrected for tunnel-flow angularity and for the deflection of the balance and sting under load. Flow-angle corrections were determined for both the cambered-wing configurations and the flat-wing configurations from upright and inverted runs of the flat wing-body-canard model with $\delta_c = 0°$.

Transition strips, about 0.125 in. wide and composed of No. 60 carborundum grit, were placed on the wing on both the upper and lower surfaces along a ray through the wing apex such that at an x/ℓ station of 0.550 (the main row of pressure taps), the leading edge of the strip would be 0.4 in. back from the center of the leading edge along the streamwise arc. Transition strips, 0.125 in. wide, were also placed around the nose of the body at a distance 1.2 in. back from the apex and over the entire canard span at a constant 0.4 in. behind the leading edge.

Pressure data were obtained from two internally mounted, 48-port scanning valves. Force data were obtained simultaneously. The force data presented herein have been adjusted to free-stream static pressures acting on both the body-cavity and the wing-base areas. After all the pressure results were obtained, oil-flow photographs were taken by using fluorescent oil under ultraviolet illumination.

RESULTS AND DISCUSSION

All the pressure-coefficient data are tabulated in appendix A. The pressure-coefficient data presented in figures 7 to 18 for analysis are from only the spanwise row of pressure taps located at $x/\ell = 0.55$. The longitudinal force and moment data are tabulated in appendix B. Appendix C contains a tabulation of the longitudinal force and moment data for the wing-alone test reported in reference 2.

Pressure Data

The pressure-coefficient data for the cambered wing-body model (nose 1) at several angles of attack are plotted in the spanwise direction in figure 7. The pressure-coefficient data for the cambered wing-body-canard model (nose 1) at several angles of attack are shown in figure 8 for the three canard incidence angles. The trends for both configurations are that the compression pressures increase with increasing angle of attack and that the expansion pressures decrease with increasing angle of attack, as expected. A comparison of the influence of the two different forebodies on the wing pressure distribution is shown in figure 9 for three angles of attack. The effects of the two different forebodies are nearly identical; therefore, nose 2 was not tested on the flat wing.

Cambered-wing pressures for wing-alone (ref. 2) and wing-body configurations are shown in figure 10 for three angles of attack. The presence of the body lowers the wing pressure on both the upper and lower surfaces, since the wing is located in the expanded flow field aft of the cone-cylinder intersection. The larger pressure shift on the lower surface of the wing is due to the wing-alone balance housing (ref. 2), which produced an additional compression on the wing lower-surface flow field in the wing-alone test. Computational studies using the method of reference 5 indicate that the presence of the balance housing for the wing-alone tests is responsible for about one-half of the difference in the lower-surface pressures seen in figure 10. It is important to note that although the upper-surface pressures expand to more negative values because of the presence of the body, the basic supercritical-crossflow pattern obtained for the wing alone is not altered.

Pressures for the cambered wing-body model with the canard on and canard off are shown in figure 11. The canard does not influence the wing lower-surface pressures, but an influence is noted on the upper-surface pressures. The upwash field outboard of the canard tip increases the local wing angles of attack in that region, thus resulting in a greater expansion around the wing upper-surface leading edge. Conversely, the downwash field inboard of the canard tip decreases the local wing angle of attack in that region, thus resulting in higher pressures on the upper surface. The transition from the canard upwash field to the canard downwash field is distinct and becomes more pronounced with increasing angle of attack and also moves inboard with increasing angle of attack. Note that this transition occurs well outboard of the canard tip which is at $\eta = 0.617$.

The effect of canard incidence angle is shown in figure 12. Changing the incidence angle on the canard from 0° to -10° effectively unloads that lifting surface with a resultant decrease in the strength of the recompression as the wing expansion field "transitions" from the canard upwash region to the canard downwash region. As the canard is unloaded, the strength of the tip vortex decreases and the transition region moves inboard toward the canard tip.

The pressure-coefficient data are summarized in figure 13 for the flat wing-body model and in figure 14 for the flat wing-body-canard model for the three canard incidence angles. The trends of the pressure data with increasing angle of attack are as expected, although the upper-surface pressure distributions are very different from those seen on the cambered-wing configurations. At all but the lowest angles of attack, the flat-wing upper-surface pressure distribution shows a leading-edge pressure spike, which was not on the cambered wing, and a relatively strong crossflow shock.

Flat-wing pressures for wing-alone and wing-body configurations are shown in figure 15. As was noted in comparisons for the cambered wing and cambered wing-body model, the presence of the large cone-cylinder body results in decreased pressures on the flat wing.

Flat-wing pressures for wing-body and wing-body-canard configurations are shown in figure 16 for three angles of attack. The main effect of the canard is to shift the crossflow shock to a slightly more outboard location.

The influence of the canard incidence angle on the flat-wing pressures is shown in figure 17 for three angles of attack. Again, this effect is primarily on the wing upper-surface pressures, although at $\alpha = 2°$ and $\delta_c = -10°$, the wing lower-surface pressures are uniformly increased across a major portion of the wing span. At this low angle of attack, deflecting the canard leading edge downward loads the canard with negative lift. Overall, the canard-incidence-angle effect is not as orderly for the flat-wing case as was noted on the cambered-wing case; but, in general, changing the canard incidence angle from 0° to -10° moves the crossflow shock inboard.

A comparison of experimental pressure data and linear-theory pressure estimates from the modified Woodward method described in reference 7 is presented in figure 18. Cambered wing-body comparisons are made at $\alpha = 10°$ for both the canard-off and canard-on cases. The linear theory underestimates the lower-surface compression pressure level across most of the wing span. The estimated upper-surface pressure levels are more accurate on the inboard portion of the wing where the crossflow is subcritical. Outboard of about 85 percent of the local wing span, the linear-theory pressures expand toward infinity and result in large errors. The calculated effect of the canard on the wing pressures is to alter both the upper- and lower-surface pressures, which is not shown by the experimental data. Also, the calculated results do not show the canard-on and canard-off pressures crossing outboard of the canard tip, as is seen in the experimental data.

The flat wing-body data in figure 18(b) at $\alpha \approx 6°$ also show the canard off and canard on. The linear theory provides a better overall pressure distribution for the flat-wing case, although the influence of the leading-edge singularity is still apparent, as expected. Again, the calculated canard effect is a downwash which increases upper-surface pressures and decreases lower-surface pressures across the entire span.

Force and Moment Data

Lift and pitching-moment data for wing-alone (ref. 2), wing-body, and wing-body-canard configurations are shown in figure 19. The addition of the cone-cylinder body causes the lift and pitching moment to decrease and the curves to remain linear except for a gradual decrease in the lift-curve slope for the flat wing-body configuration for $\alpha > 7°$. See (fig. 19(b).) The effect of adding a canard is to increase the lift, the pitching moment, and the pitching-moment-curve slope, although the addition of a canard does not influence the wing-body lift-curve slope except for the flat wing-body lift curve in its nonlinear range.

The effect of canard incidence angle on the lift and pitching-moment data is shown in figure 20. As the canard incidence angle is changed from 0° to -10°, both the lift and pitching moment decrease, although the slopes of the curves are not altered.

The drag polars for the configurations of this test program along with the polars for the two wing-alone models tested previously (ref. 2) are displayed in figure 21. The body creates a large drag increment, whereas the canard effects are, of course, much smaller and actually beneficial for the cambered wing-body model above $C_L = 0.3$. For the flat wing-body configuration, the canard drag increment is always positive, although the drag penalty dissipates at the higher lift coefficients. Figure 21(c) is presented to illustrate the drag benefit of camber at typical supersonic-maneuver lift coefficients. At $C_L = 0.4$, the cambered wing-body model produces 5 percent less drag than the flat wing-body model of the same volume.

The performance of the camber surface is quantified in figure 22 by using the drag-due-to-lift parameter $\Delta C_D/\beta C_L^2$. This parameter illustrates the beneficial effects of camber on the lifting performance of a wing. Note that the cambered-wing configurations are superior to the corresponding flat-wing configurations, except for the wing-alone case for $C_L < 0.3$. The addition of the body creates a performance decrement, in general, but the addition of the canard restores a part of the wing-alone performance, especially for the cambered wing where the canard actually generates a performance increment relative to the cambered wing-alone case for $C_L < 0.35$.

Linearized-theory estimates (ref. 7) of the lift and pitching moment of the wing-body and wing-body-canard configurations are presented in figure 23. These integrated results correspond to the pressure estimates which were shown in figure 18. Linear theory underestimates the lift and pitching moment for both wing-body configurations. Also, the slopes of these curves are less for the theory than for the experimental data. These errors are largely due to the well-known linear-theory characteristic of underestimating compression pressures, an error which grows with increasing angle of attack. The calculated canard effect shows the proper trend but not the correct increment. The linear-theory lift increment due to the canard is somewhat smaller than that shown by the experiment, whereas the calculated pitching-moment increment is much larger. Both of these errors are due to the linear-theory procedure for calculating canard influences on this wing. As shown in figure 18, the calculated canard influence is a downwash over a major portion of the wing, on both the upper and lower surfaces. The canard downwash reduces the local angles of attack of each linear-theory panel, thereby reducing the lift production of the wing. Since a large portion of the wing falls behind the pitch center, the additional calculated lift increment due to the canard is exaggerated by the erroneously calculated loss in wing lift due to the presence of the canard. The net result of the linear-theory calculation of canard influence for this configuration is the underestimation of the canard-lift increment and the overestimation of the canard-pitch increment.

Oil-Flow Results

Photographs of the upper-surface oil flow are presented in figure 24. The cambered-wing data, with and without the canard, are for the design angle of attack of approximately 10°; and the flat-wing data, with and without the canard, are for the design angle of attack of approximately 6°. The C_L values for the flat-wing cases are about 20 to 25 percent below those of the corresponding cambered wing.

The cambered-wing photographs show smooth wing flow patterns for both the canard off and canard on. In figure 24(a), the oil-accumulation line, which starts near the wing leading-edge body juncture and extends a short distance aft along a conical ray, could indicate the presence of a crossflow shock. Farther out along the span the oil-accumulation line disappears. The canard (fig. 24(b)) does not seem to exert a strong influence on the cambered-wing oil-flow pattern. In particular, the recom-

pression (fig. 11) which indicated the transition from the canard upwash region to the canard downwash region was not apparent in the oil-flow pattern. Note the separated-flow region on the canard tips.

The flat-wing configurations (figs. 24(c) and (d)) both show a strong crossflow shock, even though the lift coefficient is much less than that in the cambered-wing cases previously discussed. In figure 24(c), the crossflow shock begins just aft of the wing leading-edge body juncture and moves aft along a nearly conical ray for about 60 percent of the wing length. This is the portion of the wing which has a conical geometry. Aft of the conical portion of the wing, the crossflow shock diffuses. The location of the outboard oil-accumulation line was measured from the photograph and found to correspond to the beginning of the recompression or crossflow-shock region as defined by the pressure data. Just aft of the heavy outboard line, numerous oil-accumulation lines form into a "scalloped" pattern which may indicate areas of local flow separation. The pressure data at $x/\ell = 0.55$ (fig. 13) do not provide a clear indication of local shock-induced flow separation.

The canard-on photograph (fig. 24(d)) does show a definite canard influence on the flat wing. The wing crossflow shock directly aft of the canard is reduced in strength as shown by the much lighter oil-accumulation line directly behind the canard. Also, that portion of the wing crossflow shock which falls outboard of the canard tip appears to be somewhat more diffused than that for the corresponding canard-off case. Again, the outermost oil-accumulation line was measured and its location was found to indicate the beginning of the crossflow shock region which occurs more outboard than that for the canard-off case.

The presence of the crossflow shock on the flat wing cases is a probable source of the nonlinearity of the flat wing-body lift curve. As angle of attack is increased, the strength of the crossflow shock increases and the likelihood of local shock-induced separation increases. The effect of shock-induced separation on the upper surface would be a loss in lift.

CONCLUDING REMARKS

A test was conducted at Mach 1.62 to evaluate the effects of a cone-cylinder forebody and canards, which were mounted above the wing plane, on a conical wing designed to have controlled supercritical crossflow at the high-lift conditions required for maneuver. The results indicated that although the wing-design procedure did not include the effects of a forebody and/or canards, the supercritical crossflow and shockless recompression features were maintained in the presence of the forebody and the canards produced the expected upwash and downwash effects without changing the basic flow pattern of the isolated wing.

For reference, the same cone-cylinder forebody and canards were tested on an uncambered (flat) version of the conical wing with nearly equivalent volume. The flat-wing flow field was characterized by a strong crossflow shock at high-lift conditions. However, the body affected the flat-wing pressures in the same manner as it affected the cambered-wing pressures; that is, a uniform decrease resulted in the wing pressure field. The canard influence was to shift the flat-wing pressure field without changing the basic flow pattern.

The test of the cambered-wing configurations and the flat-wing configurations allowed a direct comparison of the benefits of camber. Both the drag polar and the

linear-theory lifting-performance parameter showed the drag reduction due to wing camber at high lift coefficients.

A comparison of experimental data with linear-theory calculations indicated that the lift and pitching-moment estimates for both the cambered-wing and flat-wing configurations were conservative, in large measure, because of the underestimation of compression pressures. The character of the mixed upper-surface crossflow was, of course, not shown by the linear-theory estimates, and also the error due to the linear-theory leading-edge singularity was noted. The calculated canard influence was a downwash over a major portion of both the upper and lower wing surfaces. However, the experimental data showed that the canards produced distinct upwash and downwash effects which were almost totally confined to the wing upper surface. The net calculated effect of the canard was an underestimation of the canard lift increment and a large overestimation of the canard pitch increment.

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December 8, 1983

REFERENCES

1. Mason, W. H.; and Miller, D. S.: Controlled Super-Critical Crossflow on Supersonic Wings - An Experimental Validation. AIAA-80-1421, July 1980.

2. Miller, David S.; Landrum, Emma Jean; Townsend, James C.; and Mason, William H.: Pressure and Force Data for a Flat Wing and a Warped Conical Wing Having a Shockless Recompression at Mach 1.62. NASA TP-1759, 1981.

3. Mason, W. H.; Siclari, M. J.; Miller, D. S.; and Pittman, J. L.: A Supersonic Maneuver Wing Designed for Nonlinear Attached Flow. AIAA-83-0425, Jan. 1983.

4. Jones, Robert T.: Properties of Low-Aspect-Ratio Pointed Wings at Speeds Below and Above the Speed of Sound. NACA Rep. 835, 1946. (Supersedes NACA TN 1032.)

5. Grossman, B.: A Numerical Procedure for the Computation of Supersonic Conical Flows. AIAA Paper 78-1213, July 1978.

6. Jackson, Charlie M., Jr.; Corlett, William A.; and Monta, William J.: Description and Calibration of the Langley Unitary Plan Wind Tunnel. NASA TP-1905, 1981.

7. Mason, William H.; and Rosen, Bruce S.: The COREL and W12SC3 Computer Programs for Supersonic Wing Design and Analysis. NASA CR-3676, 1983.

TABLE I.- FLAT-WING SPANWISE SECTION ORDINATES

η	z/y_{LE}	η	z/y_{LE}
1.000000	0.000000	0.876460	0.027420
.999970	.001840	.868670	.027800
.999710	.003830	.860660	.028140
.999200	.005390	.852430	.028450
.998440	.006740	.843990	.028720
.997430	.007960	.835330	.028960
.996160	.009100	.826450	.029160
.994630	.010160	.817370	.029310
.992860	.011170	.808080	.029450
.990830	.012140	.798580	.029550
.988550	.013060	.788880	.029630
.986010	.013950	.778980	.029670
.983230	.014800	.768890	.029700
.980200	.015630	.758590	.029710
.976920	.016430	.748100	.029710
.973380	.017210	.737430	.029710
.969610	.017970	.726560	.029710
.965580	.018700	.715510	.029710
.961310	.019420	.704280	.029730
.956800	.020110	.692870	.029770
.952040	.020790	.681290	.029840
.947040	.021450	.669530	.029930
.941800	.022100	.657600	.030080
.936320	.022730	.645500	.030260
.930600	.023350	.633240	.030490
.924640	.023940	.620810	.030780
.918450	.024510	.608240	.031130
.912030	.025070	.595500	.031520
.905370	.025600	.582610	.031970
.898480	.026100	.569580	.032460
.891370	.026570	.556400	.032980
.884030	.027010	.543080	.033550
.529620	.034130	.267790	.042350
.516030	.034750	.252400	.042220
.502300	.035390	.236930	.042020
.488450	.036050	.221410	.041820
.474470	.036720	.205830	.041600
.460370	.037400	.190200	.041400
.446160	.038080	.174520	.041210
.431830	.038740	.158800	.041030
.417390	.039370	.143030	.040870
.402850	.039980	.127230	.040730
.388200	.040530	.111400	.040610
.373460	.041030	.095540	.040520
.358620	.041470	.079650	.040440
.343690	.041820	.063750	.040390
.328670	.042100	.047820	.040350
.313560	.042290	.031890	.040330
.298380	.042390	.015950	.040320
.283120	.042410	.000000	.040320

TABLE II.- CAMBERED-WING SPANWISE SECTION ORDINATES

(a) Upper surface

η	z/y_{LE}	η	z/y_{LE}
1.000000	-0.207000	0.877440	-0.131880
.999790	-.205420	.869510	-.128340
.999260	-.203850	.861360	-.124750
.998450	-.202250	.852990	-.121100
.997350	-.200600	.844390	-.117400
.995980	-.198890	.835560	-.113650
.994330	-.197110	.826520	-.109850
.992410	-.195260	.817260	-.105990
.990230	-.193340	.807790	-.102090
.987770	-.191330	.798100	-.098150
.985060	-.189250	.788210	-.094160
.982070	-.187080	.778100	-.090130
.978830	-.184830	.767800	-.086060
.975330	-.182510	.757290	-.081970
.971570	-.180100	.746580	-.077850
.967550	-.177610	.735680	-.073700
.963280	-.175040	.724580	-.069540
.958750	-.172400	.713300	-.065370
.953970	-.169680	.701830	-.061200
.948940	-.166890	.690170	-.057040
.943660	-.164020	.678330	-.052880
.938130	-.161090	.666310	-.048750
.932350	-.158080	.654120	-.044650
.926320	-.155020	.641760	-.040590
.920060	-.151890	.629230	-.036570
.913550	-.148700	.616540	-.032620
.906800	-.145450	.603680	-.028730
.899810	-.142140	.590670	-.024910
.892590	-.138780	.577500	-.021190
.885130	-.135350	.564180	-.017560
.550710	-.014030	.271780	.030120
.537100	-.010610	.256160	.031290
.523350	-.007300	.240470	.032370
.509460	-.004130	.224720	.033370
.495440	-.001080	.208910	.034280
.481290	.001850	.193040	.035110
.467020	.004670	.177130	.035880
.452620	.007360	.161170	.036580
.438110	.009930	.145170	.037220
.423480	.012370	.129140	.037800
.408740	.014690	.113070	.038330
.393890	.016880	.096970	.038800
.378940	.018950	.080850	.039210
.363900	.020890	.064700	.039570
.348760	.022720	.048540	.039860
.333530	.024420	.032370	.040080
.318210	.026010	.016190	.040220
.302810	.027490	.000000	.040270
.287330	.028860		

TABLE II.- Concluded

(b) Lower surface

η	z/y_{LE}	η	z/y_{LE}
1.000000	-0.207000	0.880440	-0.191280
.999880	-.208640	.873010	-.188710
.999320	-.210560	.865350	-.186020
.998610	-.212260	.857490	-.183210
.997830	-.213930	.849410	-.180270
.996770	-.215630	.841130	-.177210
.995630	-.216820	.832640	-.174020
.994320	-.217720	.823940	-.170720
.992810	-.218390	.815040	-.167300
.991090	-.218860	.805940	-.163760
.989140	-.219160	.796650	-.160120
.986970	-.219310	.787150	-.156390
.984560	-.219300	.777470	-.152570
.981930	-.219140	.767590	-.148670
.979060	-.218850	.757530	-.144710
.975950	-.218430	.747270	-.140700
.972610	-.217880	.736840	-.136660
.969040	-.217200	.726220	-.132600
.965220	-.216400	.715420	-.128540
.961180	-.215480	.704450	-.124510
.956900	-.214440	.693310	-.120510
.952390	-.213300	.681990	-.116570
.947650	-.212050	.670510	-.112700
.942670	-.210690	.658860	-.108930
.937470	-.209220	.647050	-.105280
.932030	-.207660	.635080	-.101760
.926370	-.205990	.622950	-.098390
.920480	-.204220	.610670	-.095190
.914360	-.202340	.598240	-.092160
.908020	-.200360	.585660	-.089290
.901450	-.198260	.572930	-.086580
.894670	-.196050	.560070	-.084040
.887670	-.193730	.547070	-.081670
.533930	-.079460	.263060	-.054180
.520660	-.077410	.247930	-.052750
.507260	-.075530	.232740	-.051320
.493740	-.073800	.217490	-.049930
.480090	-.072210	.202184	-.048628
.466330	-.070750	.186828	-.047413
.452450	-.069400	.171425	-.046288
.438450	-.068160	.155979	-.045256
.424350	-.066990	.140494	-.044318
.410140	-.065890	.124973	-.043476
.395840	-.064820	.109420	-.042729
.381430	-.063780	.093840	-.042080
.366930	-.062730	.078237	-.041528
.352330	-.061670	.062614	-.041075
.337660	-.060560	.046974	-.040722
.322890	-.059410	.031323	-.040470
.308050	-.058200	.015664	-.040319
.293120	-.056920	.000000	-.040267
.278130	-.055580		

TABLE III.- BODY ORDINATES

[Body-station reference selected to correspond to coordinate system of wing-alone test]

(a) Nose 1

x, in.	r, in.
-8.000	0
-2.650	[a]1.947
-2.600	1.965
-2.550	1.982
-2.500	1.999
-2.450	2.015
-2.400	2.030
-2.350	2.044
-2.300	2.058
-2.250	2.071
-2.200	2.083
-2.150	2.095
-2.100	2.106
-2.050	2.116
-2.000	2.125
-1.950	2.133
-1.900	2.141
-1.850	2.148
-1.800	2.155
-1.600	2.173
2.550	[a]2.463
2.600	2.467
2.650	2.470
2.700	2.473
2.750	2.476
2.800	2.479
2.850	2.481
2.900	2.484
2.950	2.486
3.000	2.488
3.050	2.490
3.100	2.492
3.150	2.493
3.200	2.495
3.250	2.496
3.300	2.497
3.400	2.498
3.500	2.500
.	.
.	.
.	.
24.000	2.500

(b) Nose 2

x, in.	r, in.
-8.000	0
-.850	[a]2.602
-.800	2.620
-.750	2.637
-.700	2.652
-.650	2.666
-.600	2.678
-.550	2.689
-.500	2.698
-.450	2.706
-.400	2.712
-.350	2.717
-.300	2.721
-.250	2.723
-.200	2.724
-.150	2.723
-.100	2.721
-.050	2.718
2.550	[a]2.536
2.700	2.526
2.750	2.523
2.800	2.520
2.850	2.518
2.900	2.515
2.950	2.513
3.000	2.511
3.050	2.509
3.100	2.507
3.150	2.506
3.200	2.504
3.250	2.503
3.300	2.502
3.350	2.501
3.400	2.501
3.450	2.501
3.500	2.500
3.550	2.500
3.600	2.500
.	.
.	.
.	.
24.000	2.500

[a]Straight contour between these locations.

TABLE IV.- PRESSURE-ORIFICE LOCATIONS

Model orifice	x, in.	y, in.	η
Upper surface			
1	10.8	7.013	1.000
2	↓	6.908	.985
3		6.803	.970
4		6.452	.925
5		6.031	.860
6		5.049	.720
7		4.769	.680
8		4.348	.620
9		3.787	.540
(a)	(a)	(a)	(a)
11	13.2	8.752	1.000
12	↓	8.529	.995
13		8.443	.985
14		8.315	.970
15		8.143	.950
16		7.929	.925
17		7.715	.900
18		7.372	.860
19		7.029	.820
20		6.686	.780
21		6.343	.740
22		6.172	.720
23		6.000	.700
24		5.829	.680
25		5.658	.660
26		5.143	.620
27		4.972	.580
28		4.629	.540
29		3.943	.460
30		3.429	.400
(a)	(a)	(a)	(a)
↓	↓	↓	↓
36	15.0	9.740	1.000
37	↓	8.377	.860
38		7.014	.720
39		6.039	.620
40		5.260	.540
41	16.2	10.52	1.000
42	17.4	11.30	1.000
43	17.4	9.718	.860

Model orifice	x, in.	y, in.	η
Upper surface			
44	17.4	8.136	0.720
45	17.4	7.006	.620
46	17.4	6.102	.540
47	19.8	9.258	.720
48	19.8	7.972	.620
49	19.8	6.943	.540
50	(b)	(b)	1
51	↓	↓	2
52			3
53			4
Lower surface			
54	10.8	6.908	0.985
55	↓	6.452	.925
56		4.909	.700
57		2.805	.400
(a)	(a)	(a)	(a)
59	13.2	8.572	1.000
60	↓	8.529	.995
61		8.443	.985
62		8.315	.970
63		8.143	.950
64		7.929	.925
65		7.715	.900
66		7.372	.860
67		6.686	.780
68		6.000	.700
69		5.143	.620
70		4.629	.540
71		3.429	.400
(a)	(a)	(a)	(a)
73	17.4	9.718	.860
74	↓	8.136	.720
75		7.006	.620
76		6.102	.540
77	19.8	9.258	.720
78	19.8	7.972	.620
79	19.8	6.943	.540

[a]Orifice locations eliminated because of addition of body to wing-alone models.

[b]Base pressure.

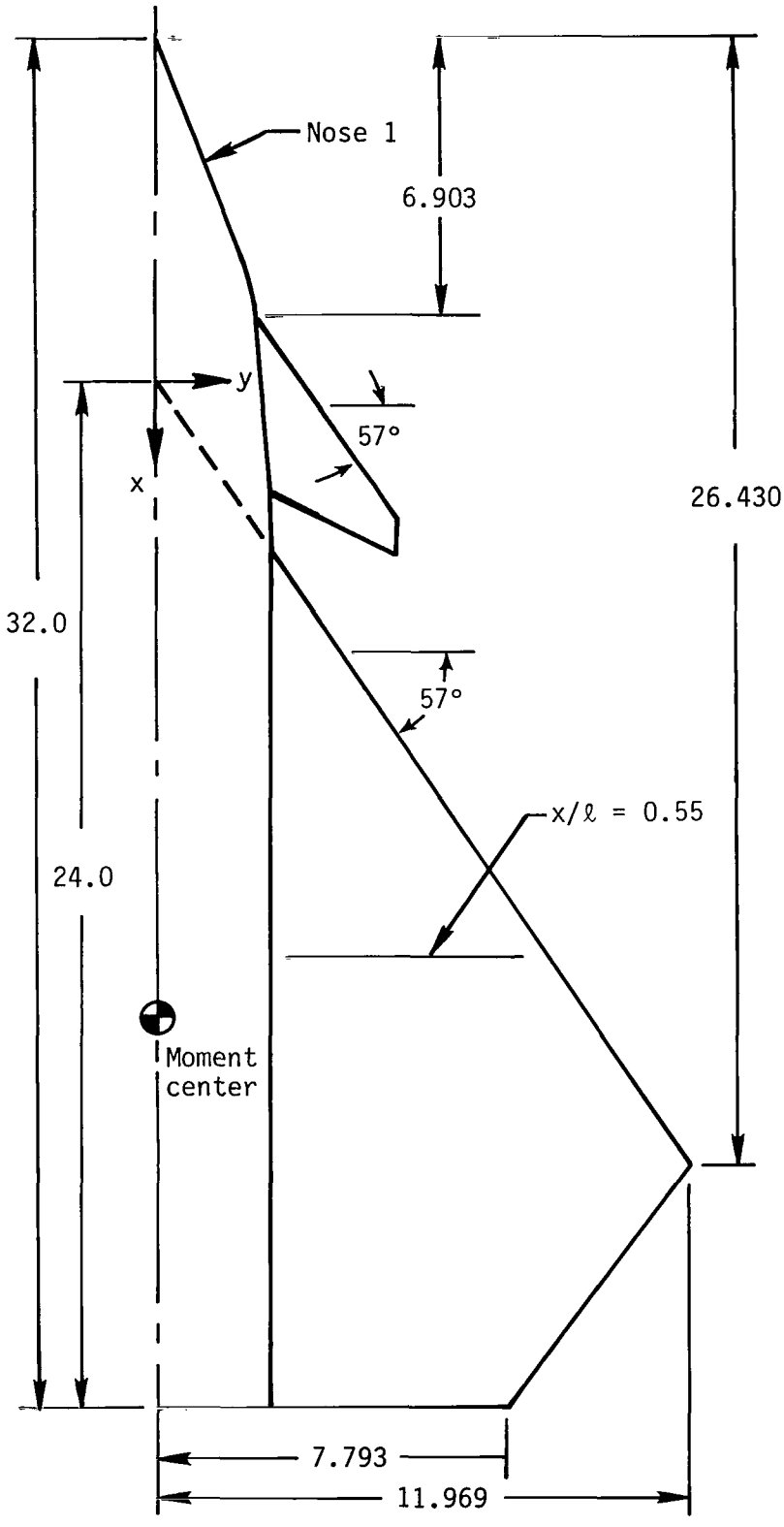


Figure 1.- Model layout of wing-body-canard configuration. All dimensions are given in inches unless otherwise specified.

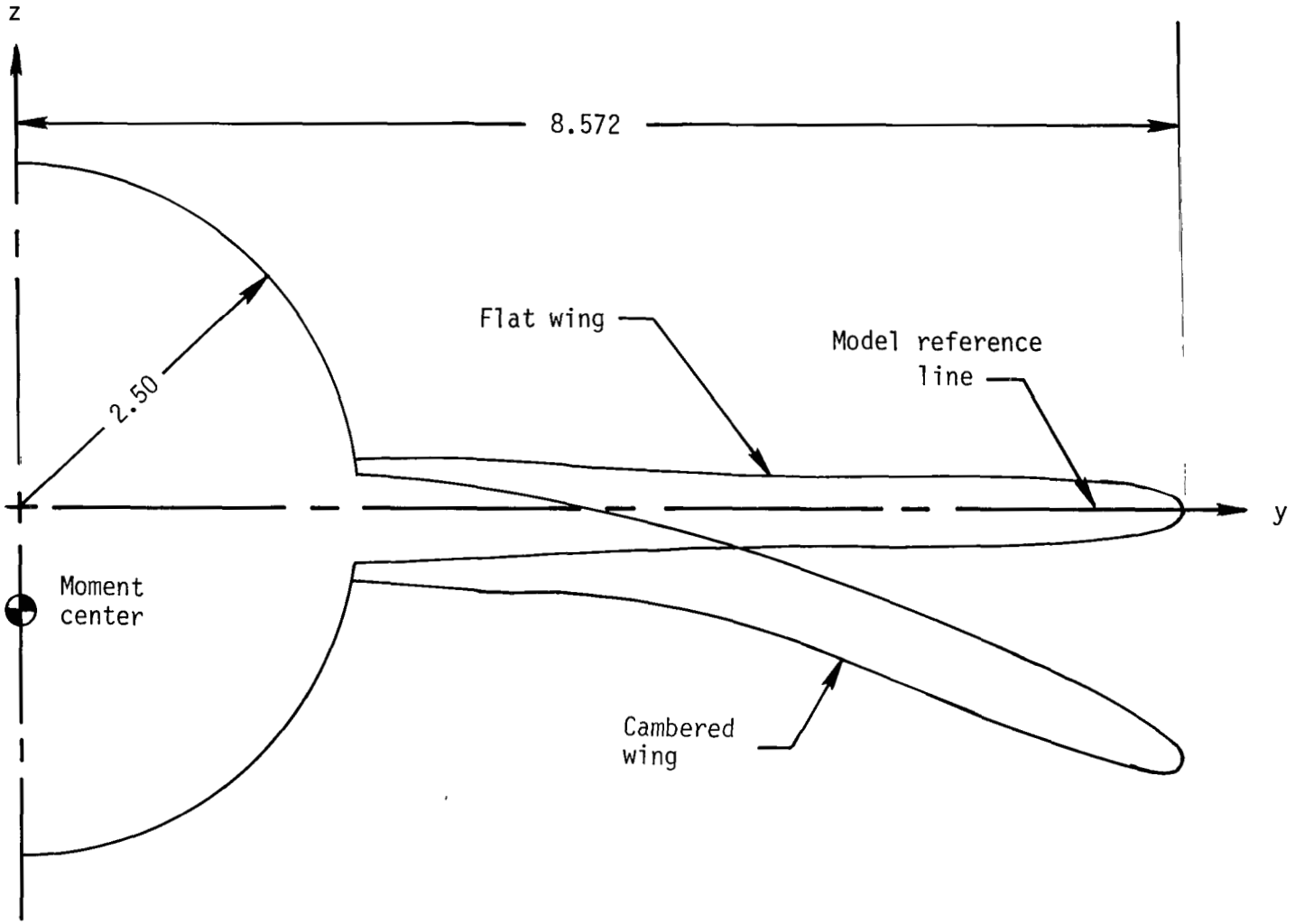


Figure 2.- Spanwise cross section. x = 13.20 in.; $x/\ell \leq 0.55$. All dimensions are given in inches.

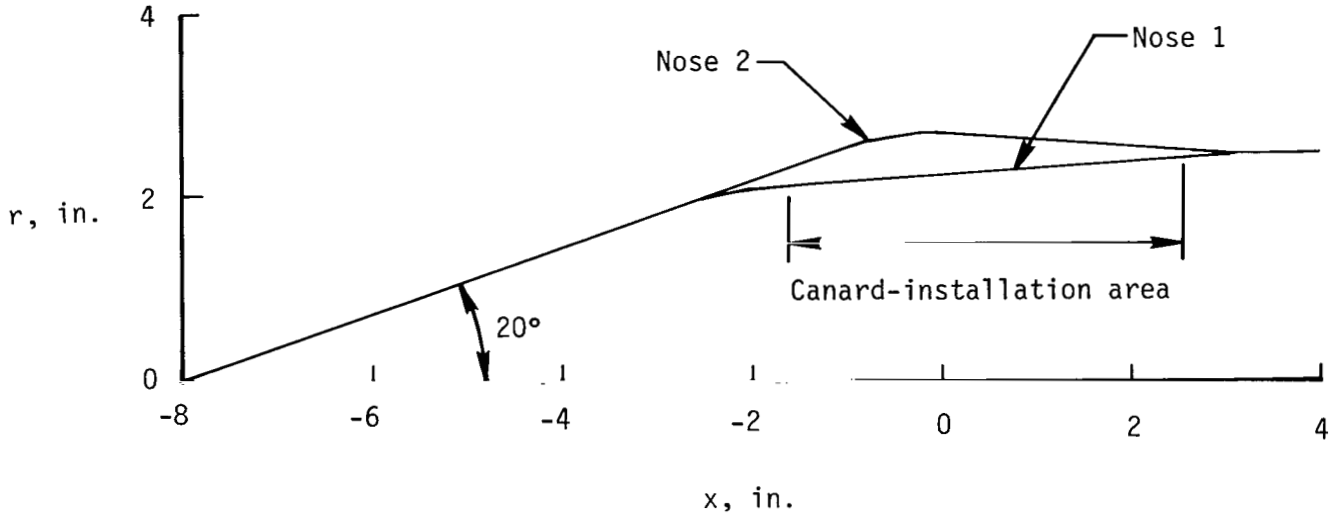
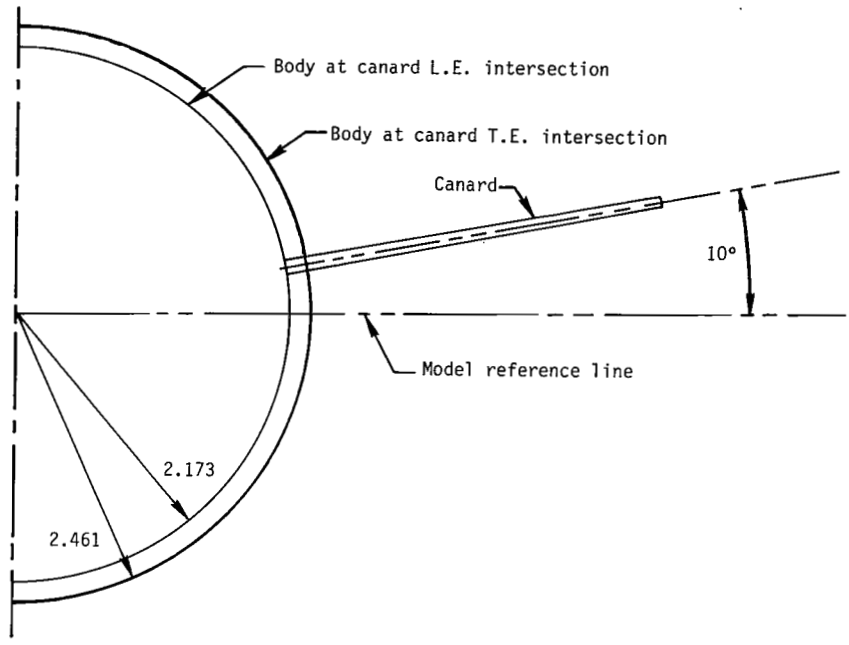
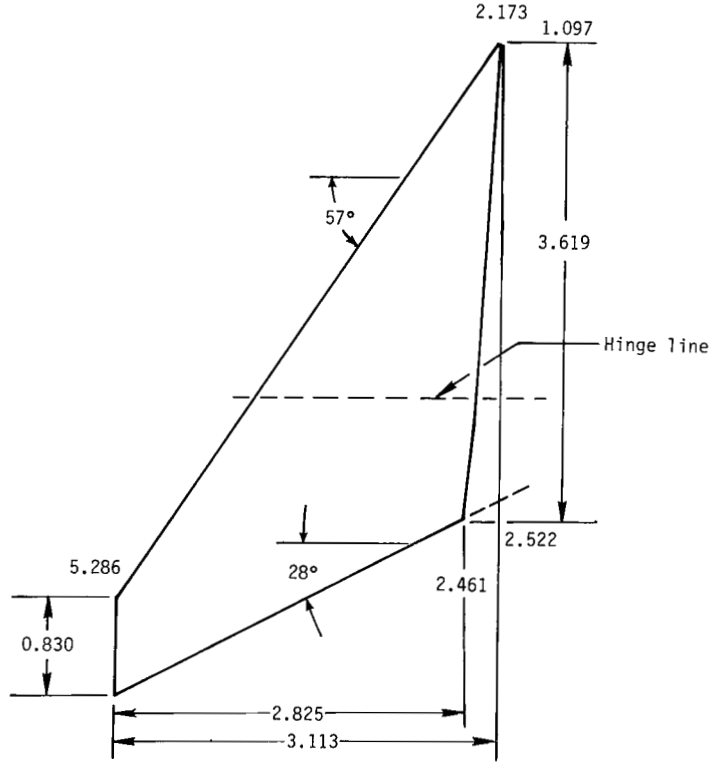


Figure 3.- Forebody radius distribution.

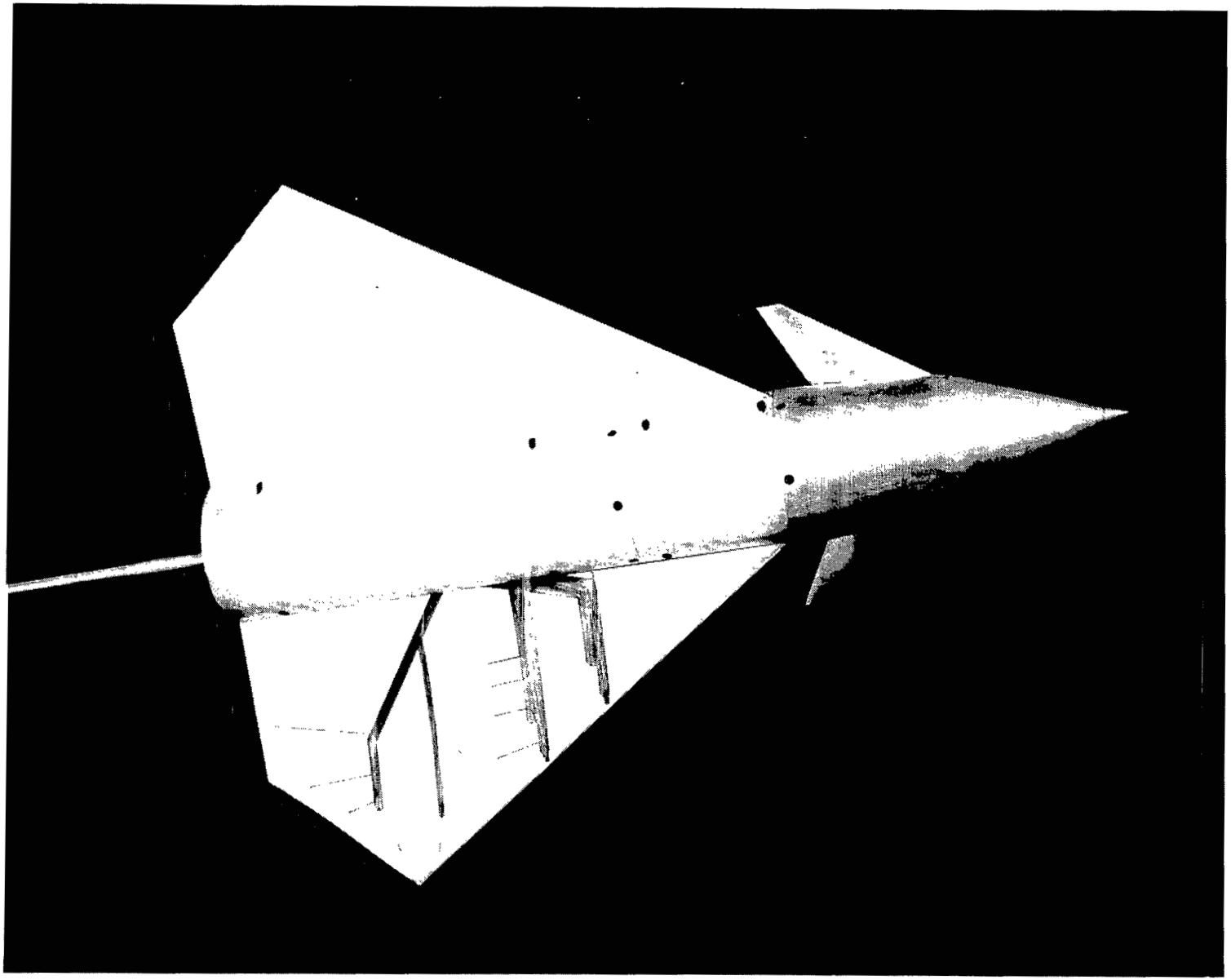


(a) Front view.



(b) Plan view.

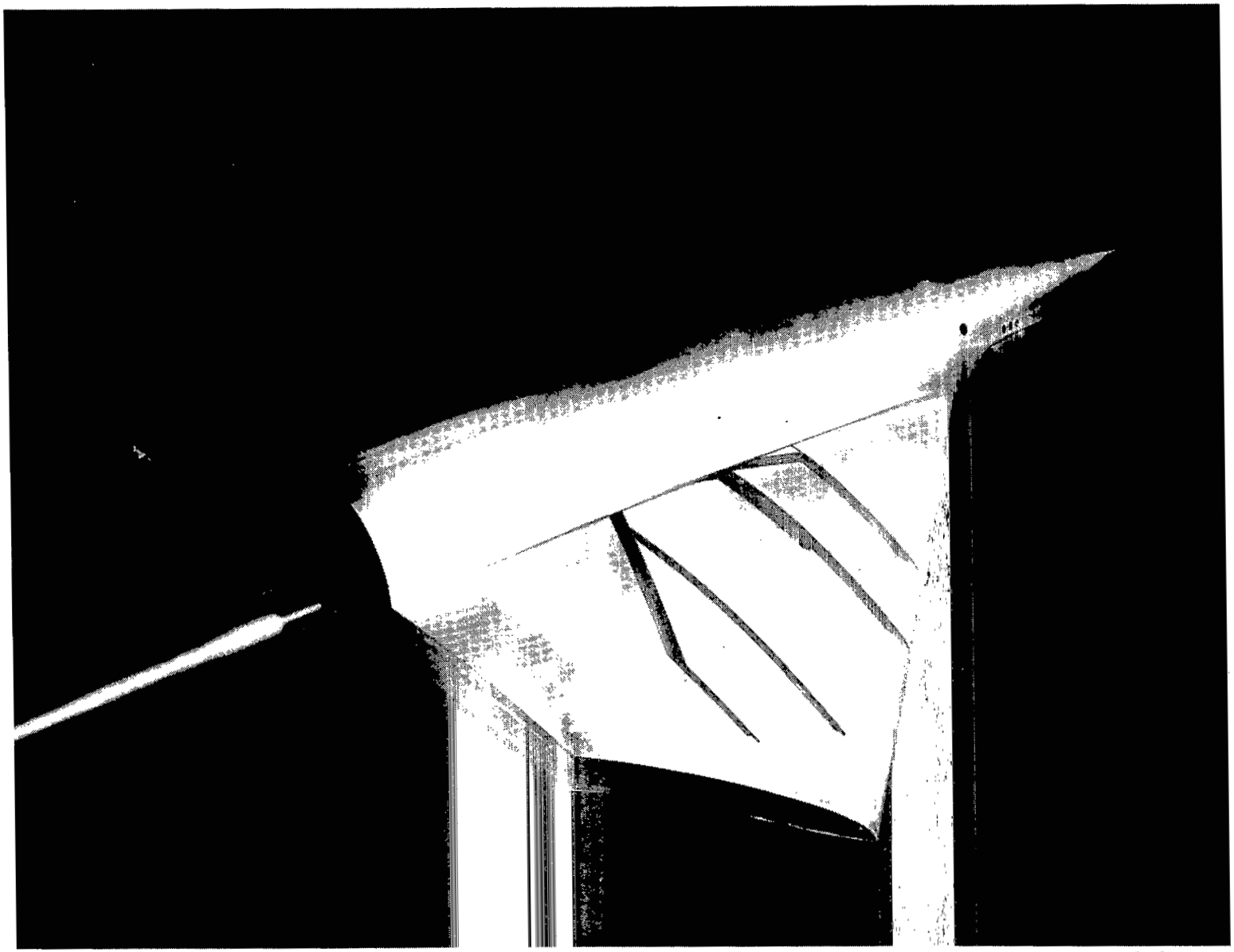
Figure 4.- Canard-installation details. Biconvex section, t/c = 0.05; linear twist distribution, 2.5° washout. All dimensions are given in inches unless otherwise specified.



L-82-313

(a) Bottom view of cambered wing-body canard model.

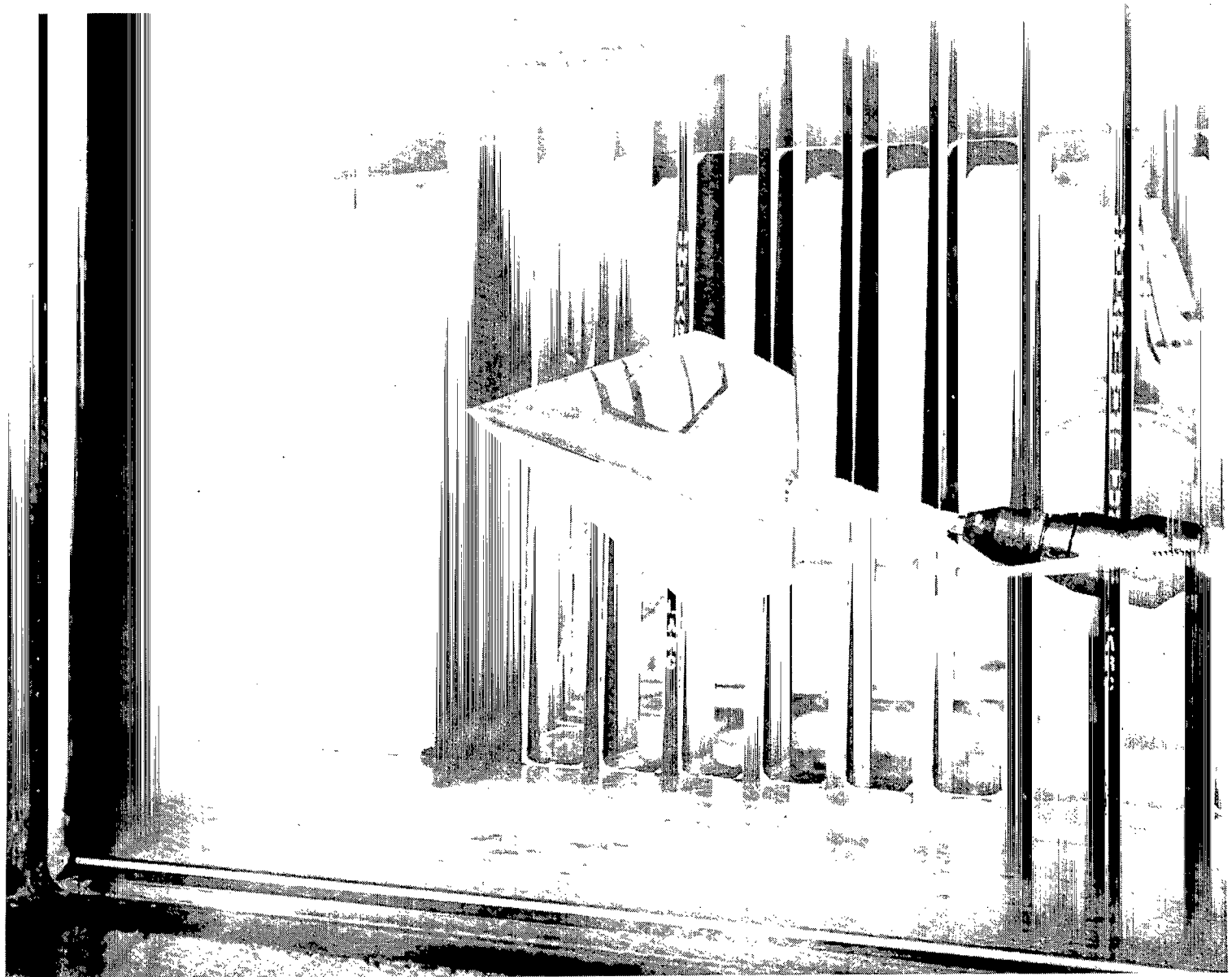
Figure 5.- Photographs of wind-tunnel models.



L-82-321

(b) Aft view of cambered wing-body-canard model.

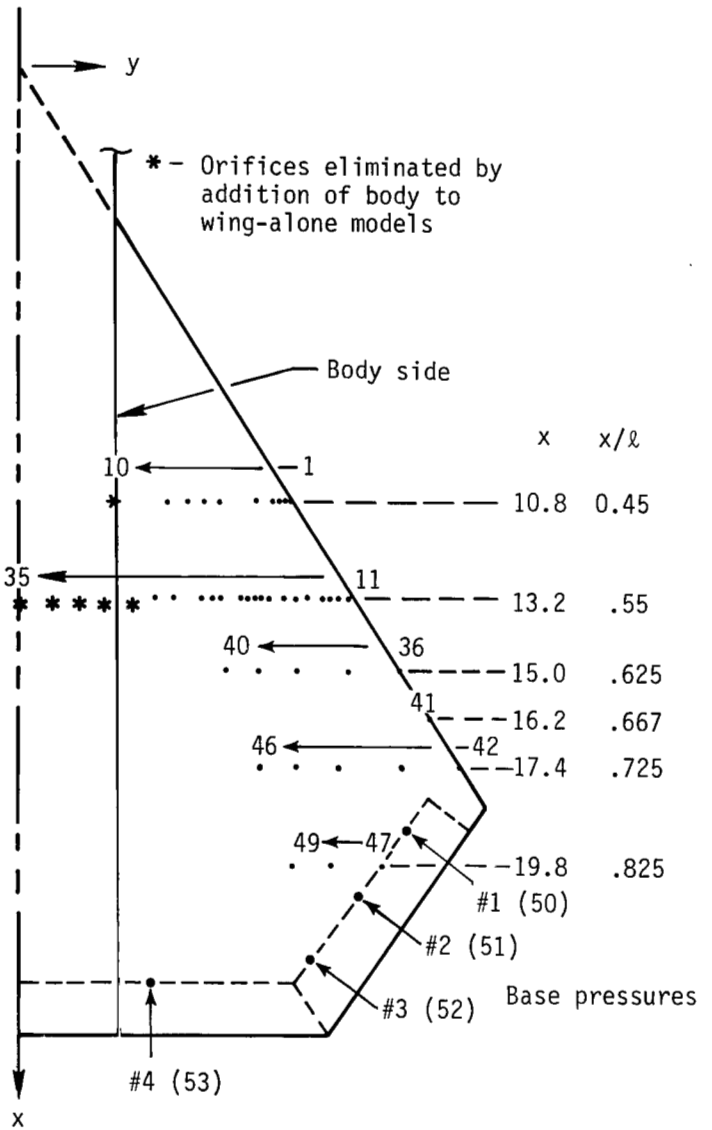
Figure 5.- Continued.



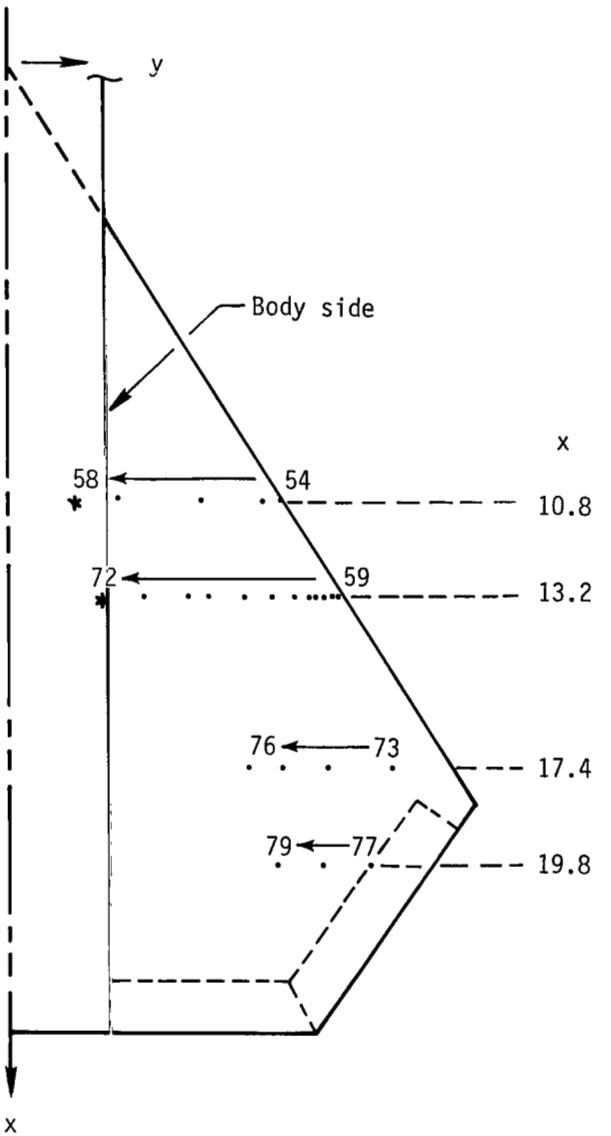
L-79-7698

(c) Bottom view of cambered wing alone from reference 2.

Figure 5.- Concluded.



(a) Upper surface.



(b) Lower surface.

Figure 6.- Pressure orifice locations.

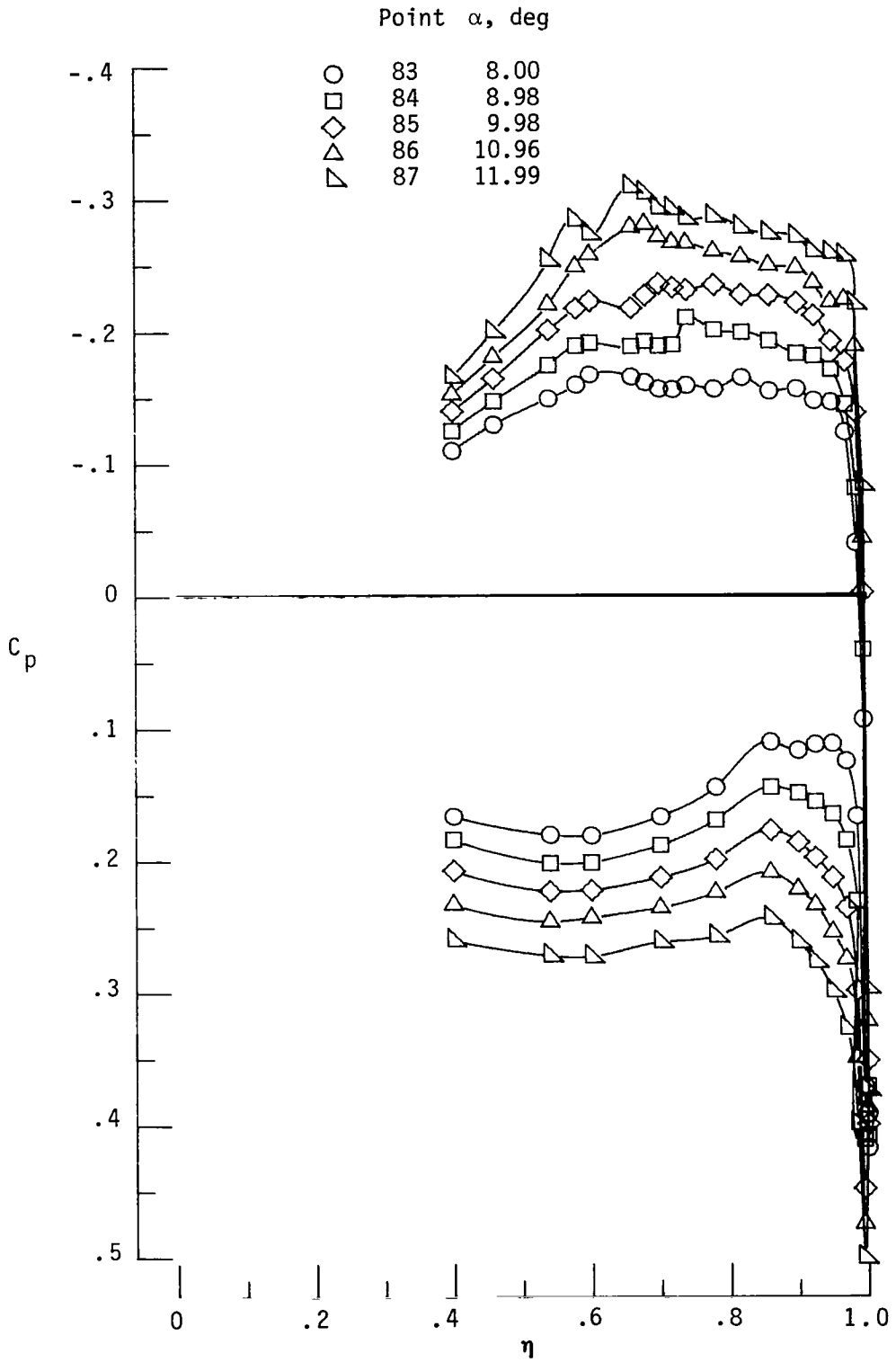
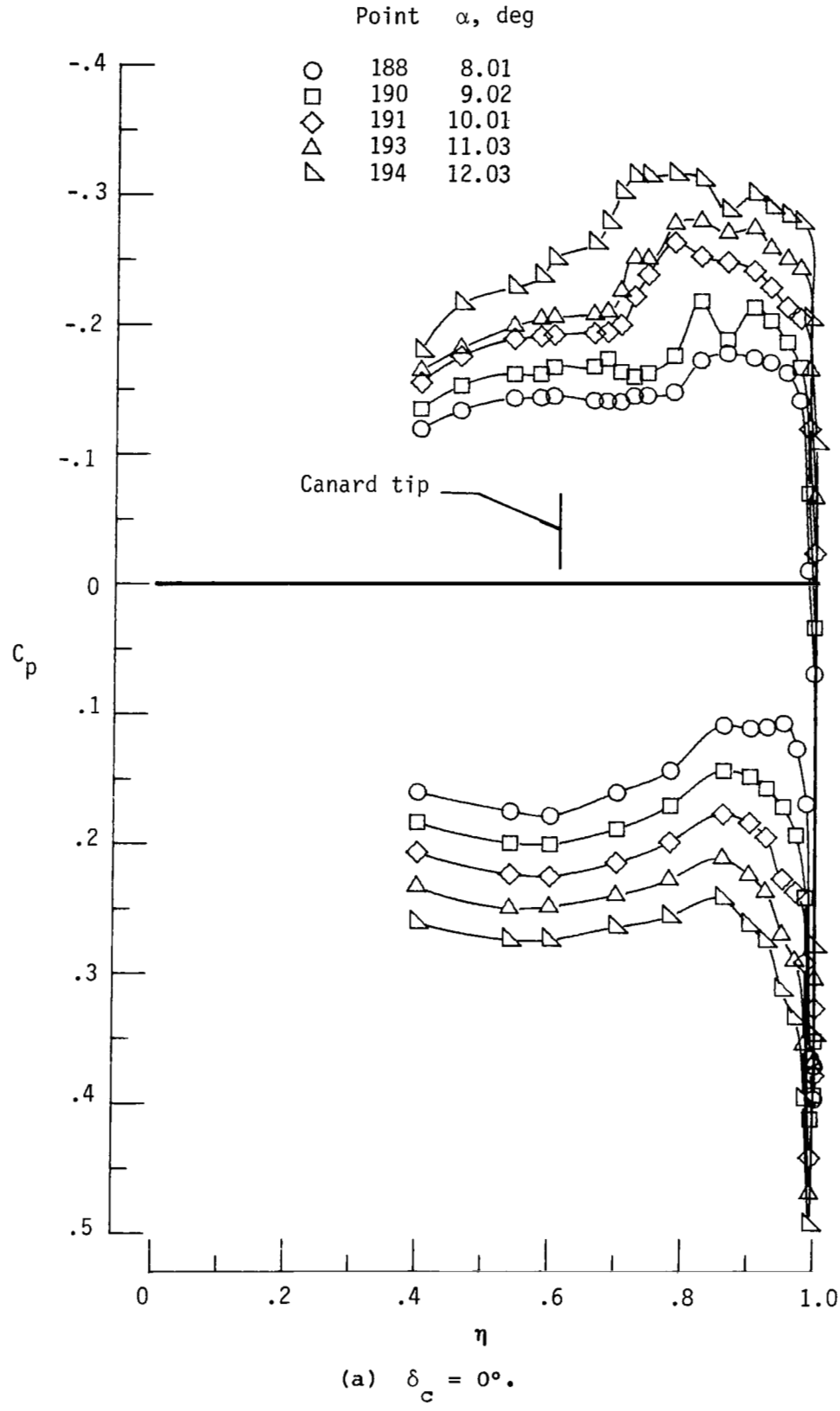
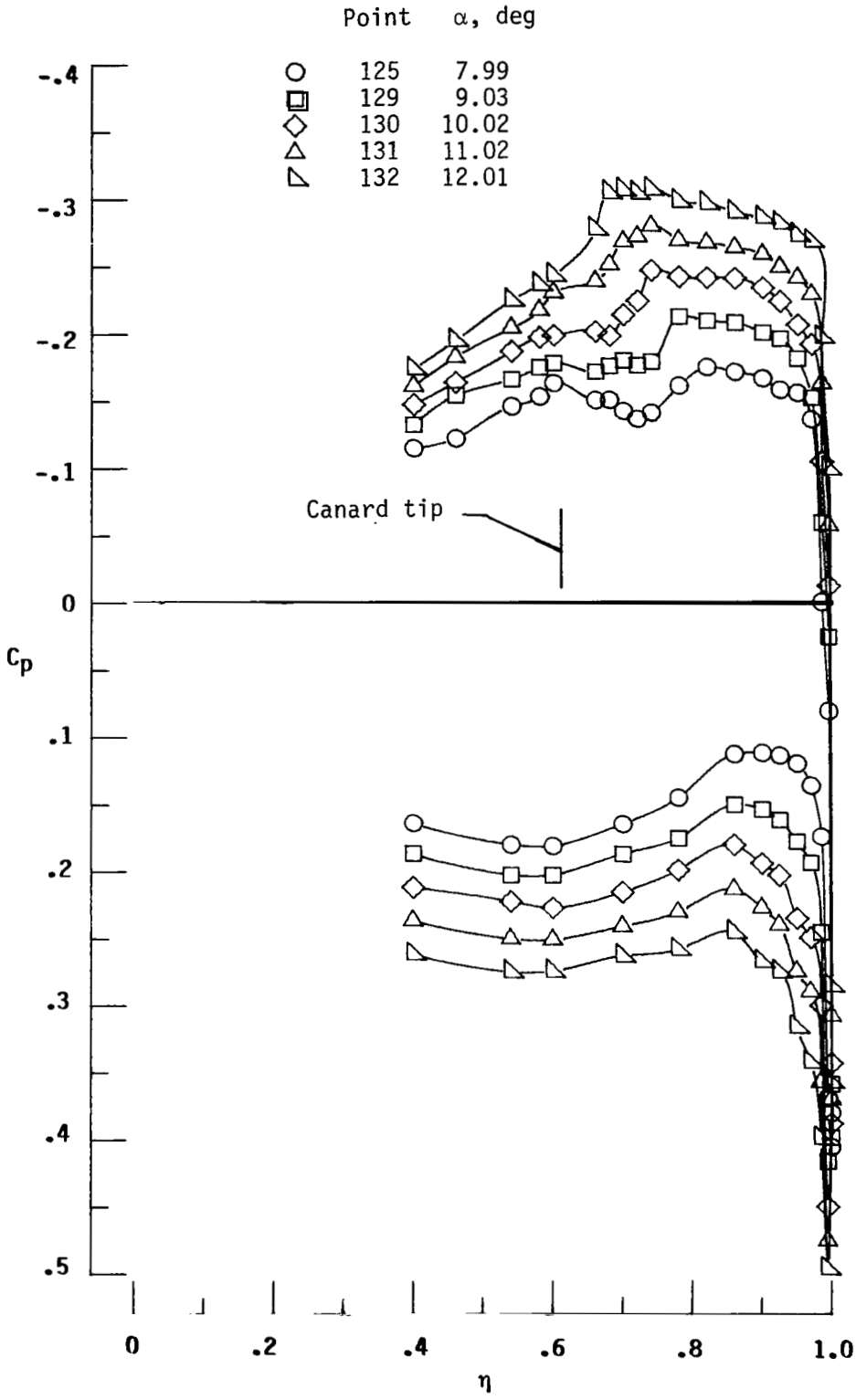


Figure 7.- Summary of pressure-coefficient data for cambered wing-body model (nose 1). $x/\ell = 0.55$; $M = 1.62$.



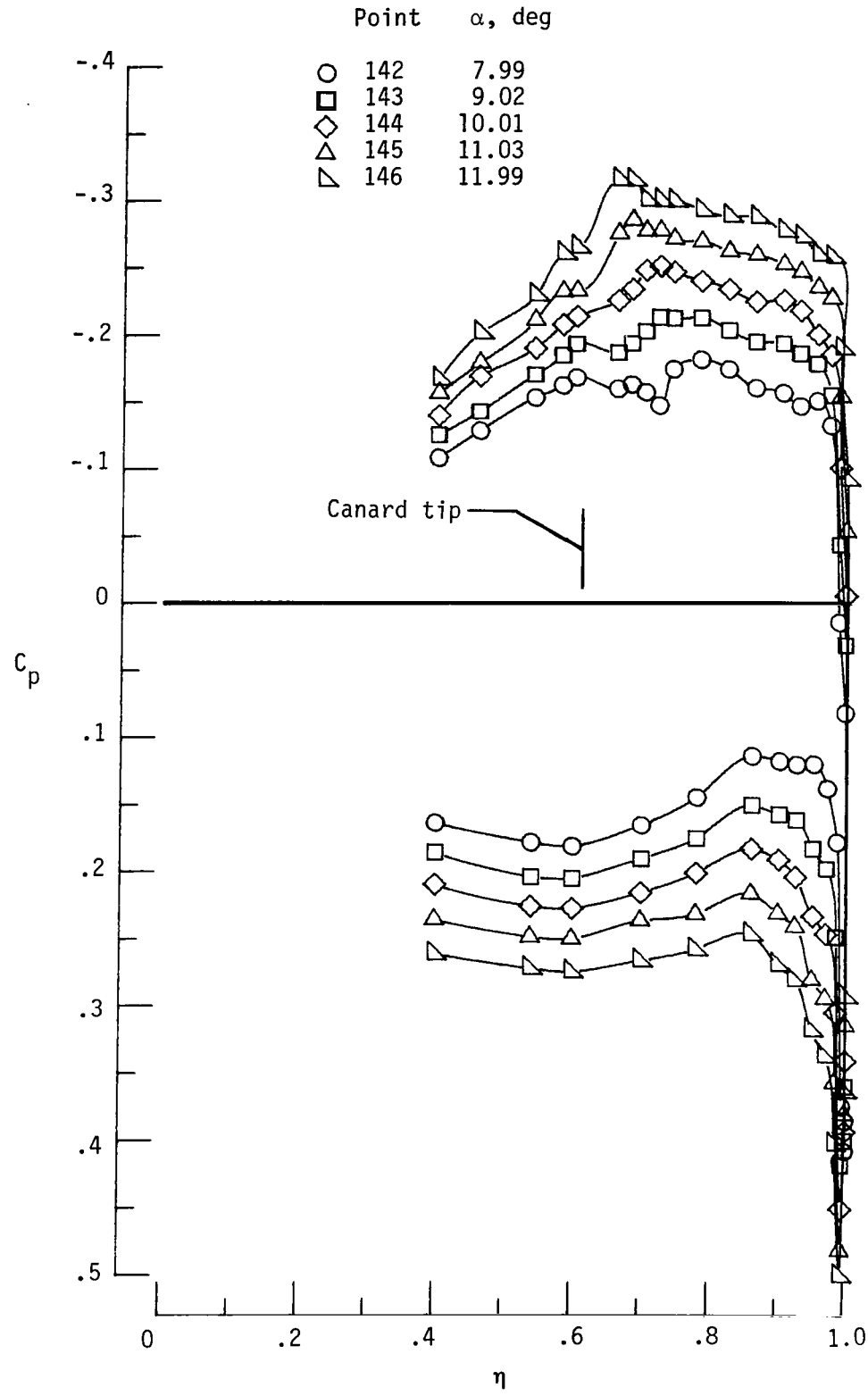
(a) $\delta_c = 0°$.

Figure 8.- Summary of pressure-coefficient data for cambered wing-body-canard model (nose 1). $x/\ell = 0.55$; M = 1.62.



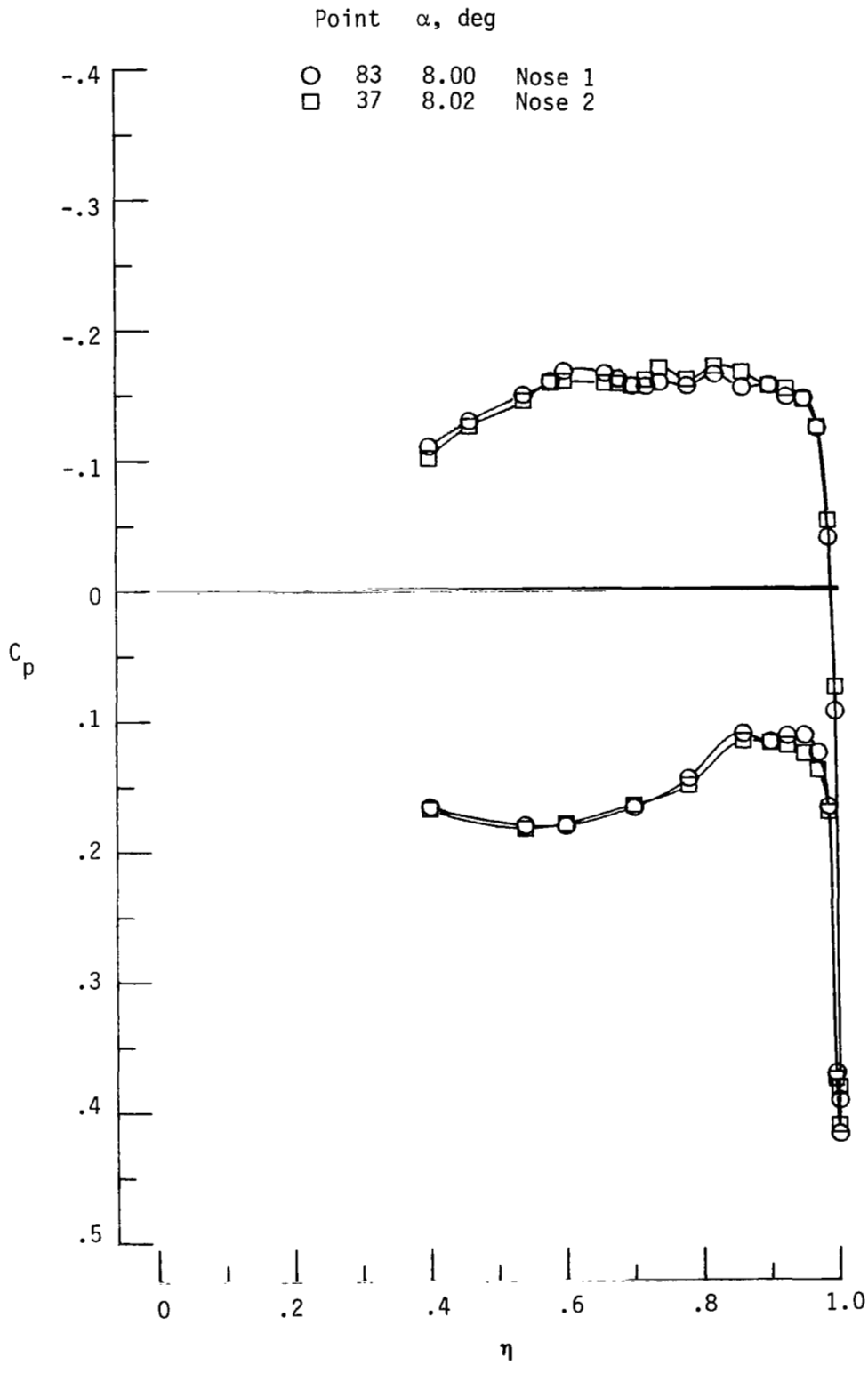
(b) $\delta_c = -5°$.

Figure 8.- Continued.



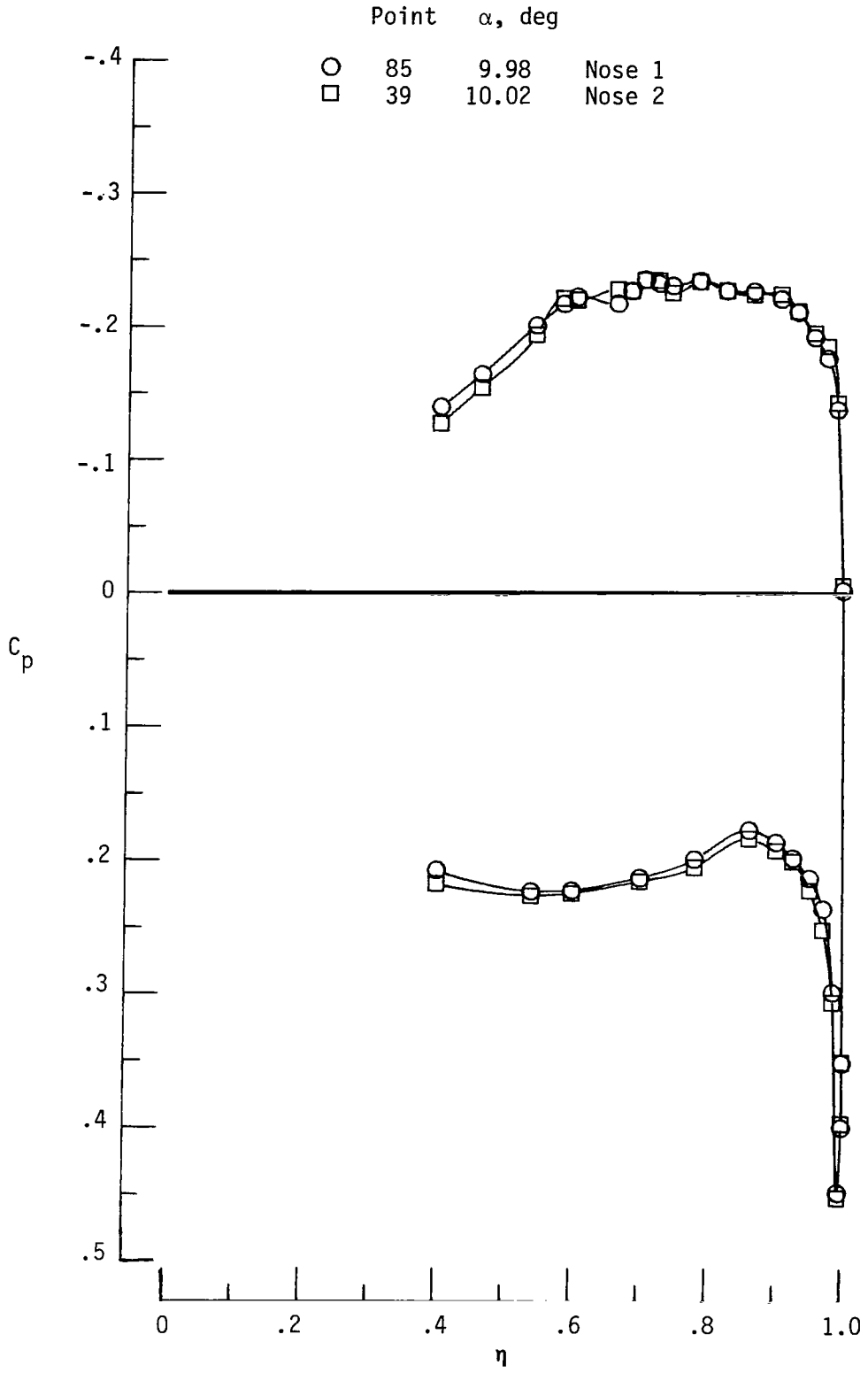
(c) $\delta_c = -10°$.

Figure 8.- Concluded.



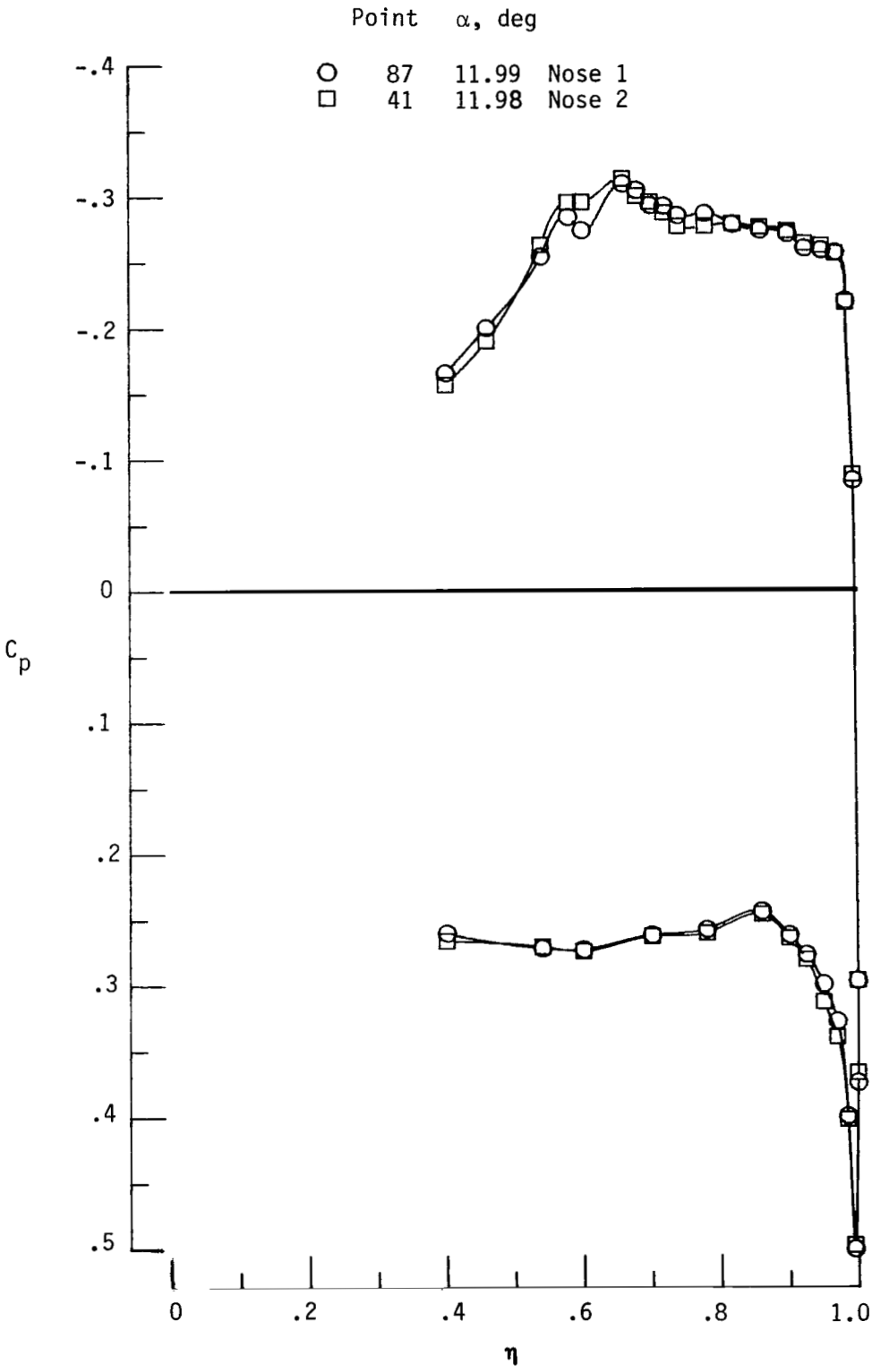
(a) $\alpha \approx 8°$.

Figure 9.- Effect of forebody shape on cambered wing-body pressure distributions. $x/\ell = 0.55$; $M = 1.62$.



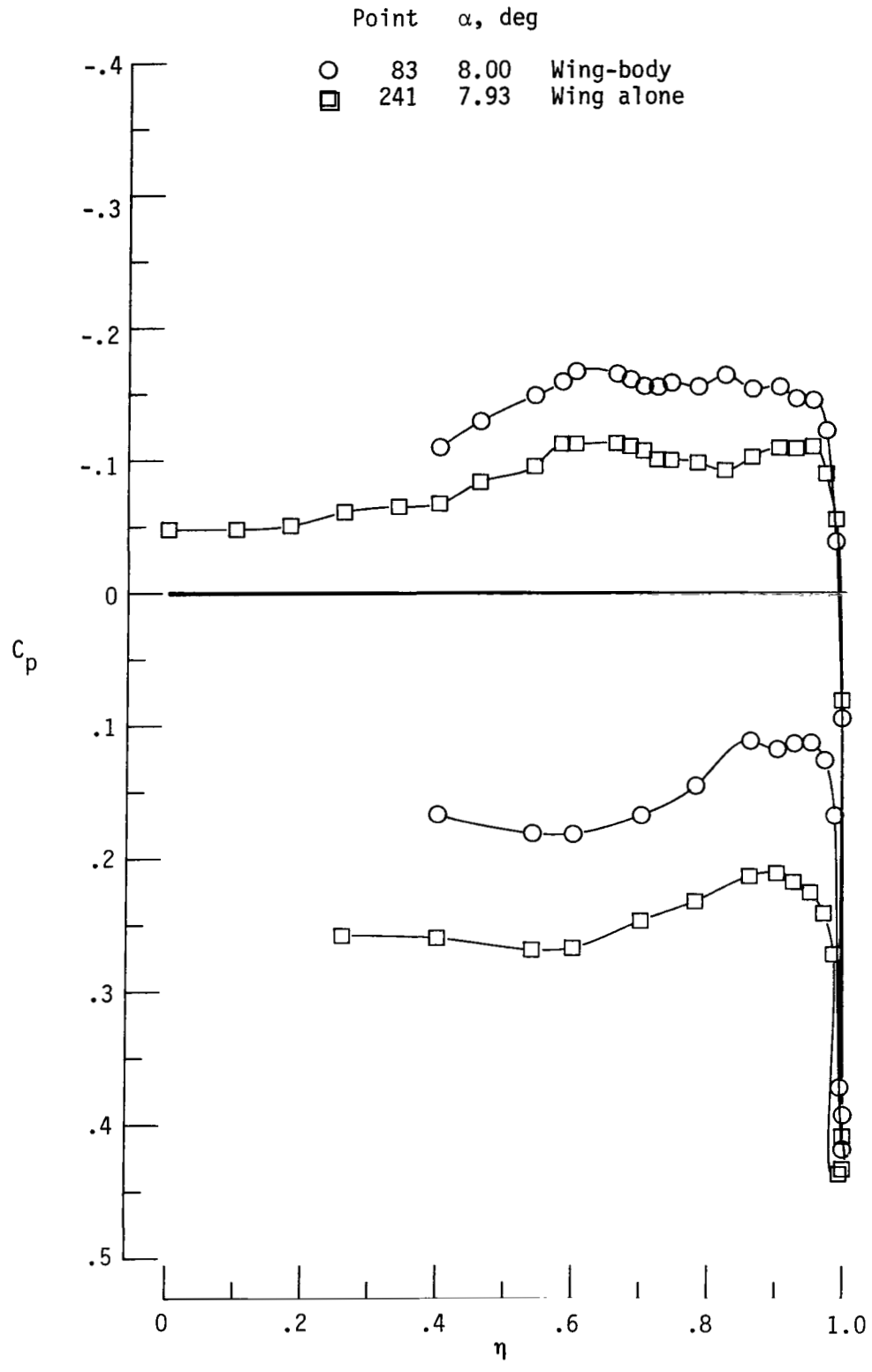
(b) $\alpha \approx 10°$.

Figure 9.- Continued.



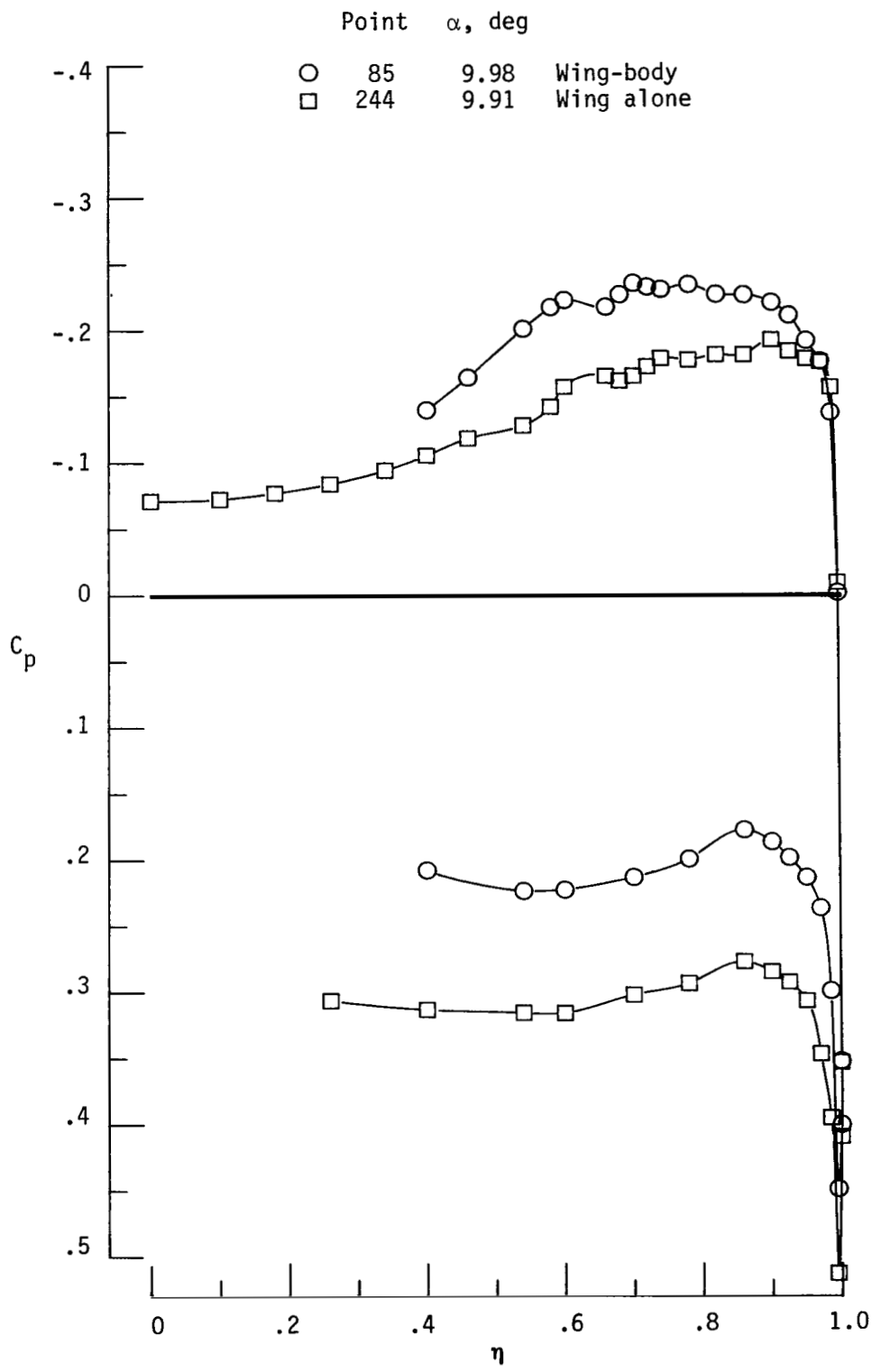
(c) $\alpha \approx 12°$.

Figure 9.- Concluded.



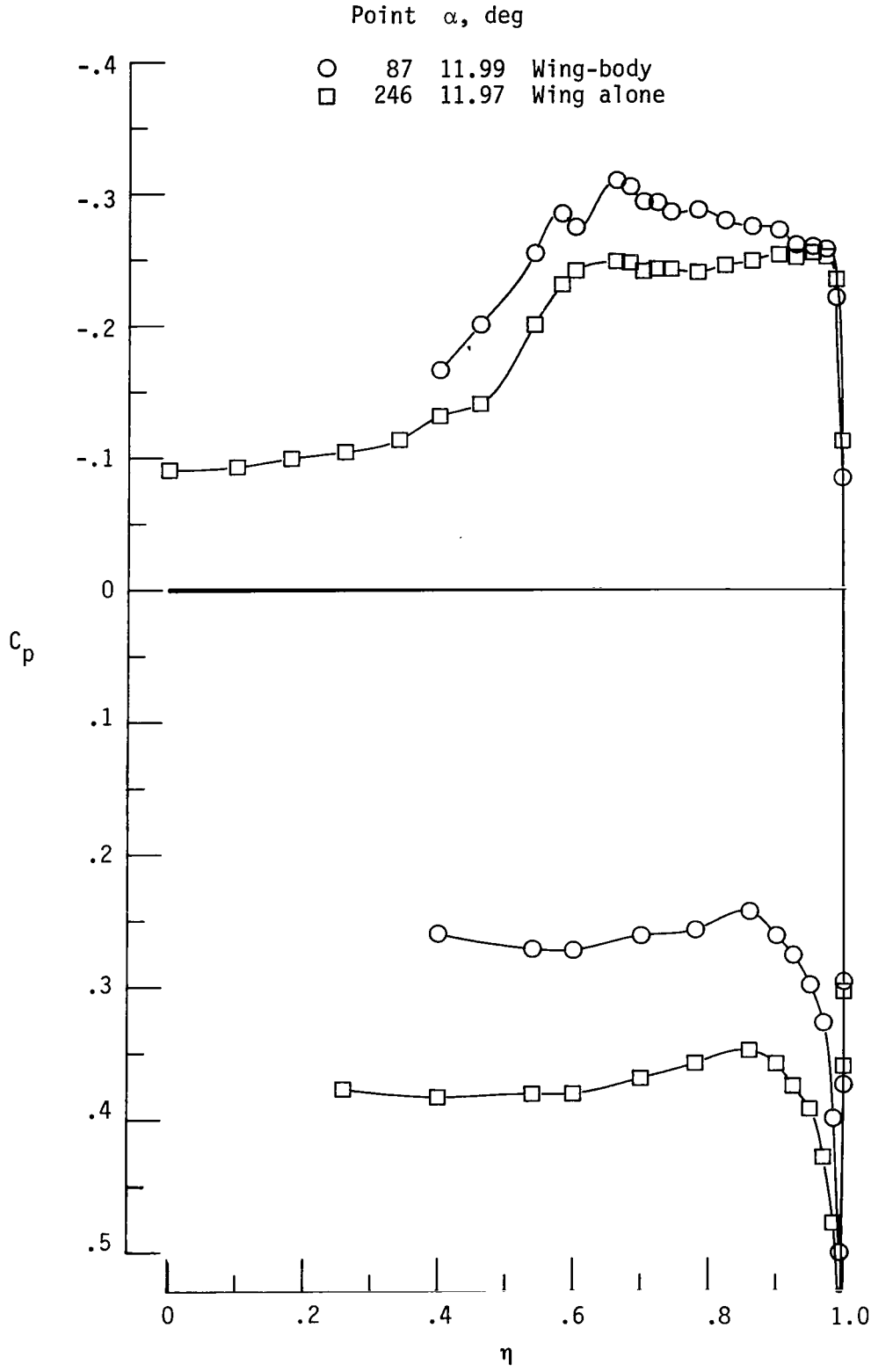
(a) $\alpha \approx 8°$.

Figure 10.- Effect of cone-cylinder body (nose 1) on cambered-wing pressure distributions. $x/\ell = 0.55$; $M = 1.62$.



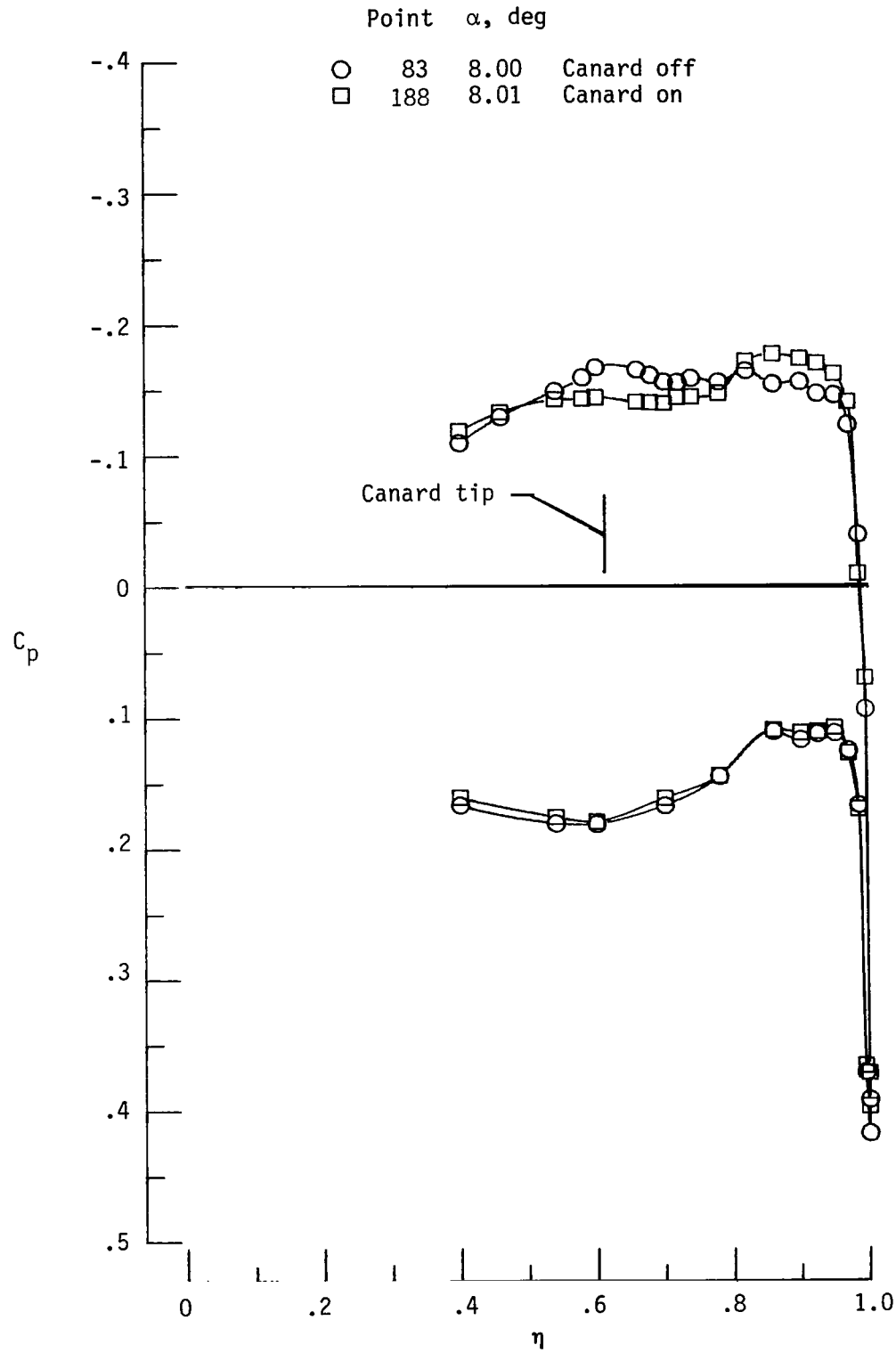
(b) $\alpha \approx 10°$.

Figure 10.- Continued.



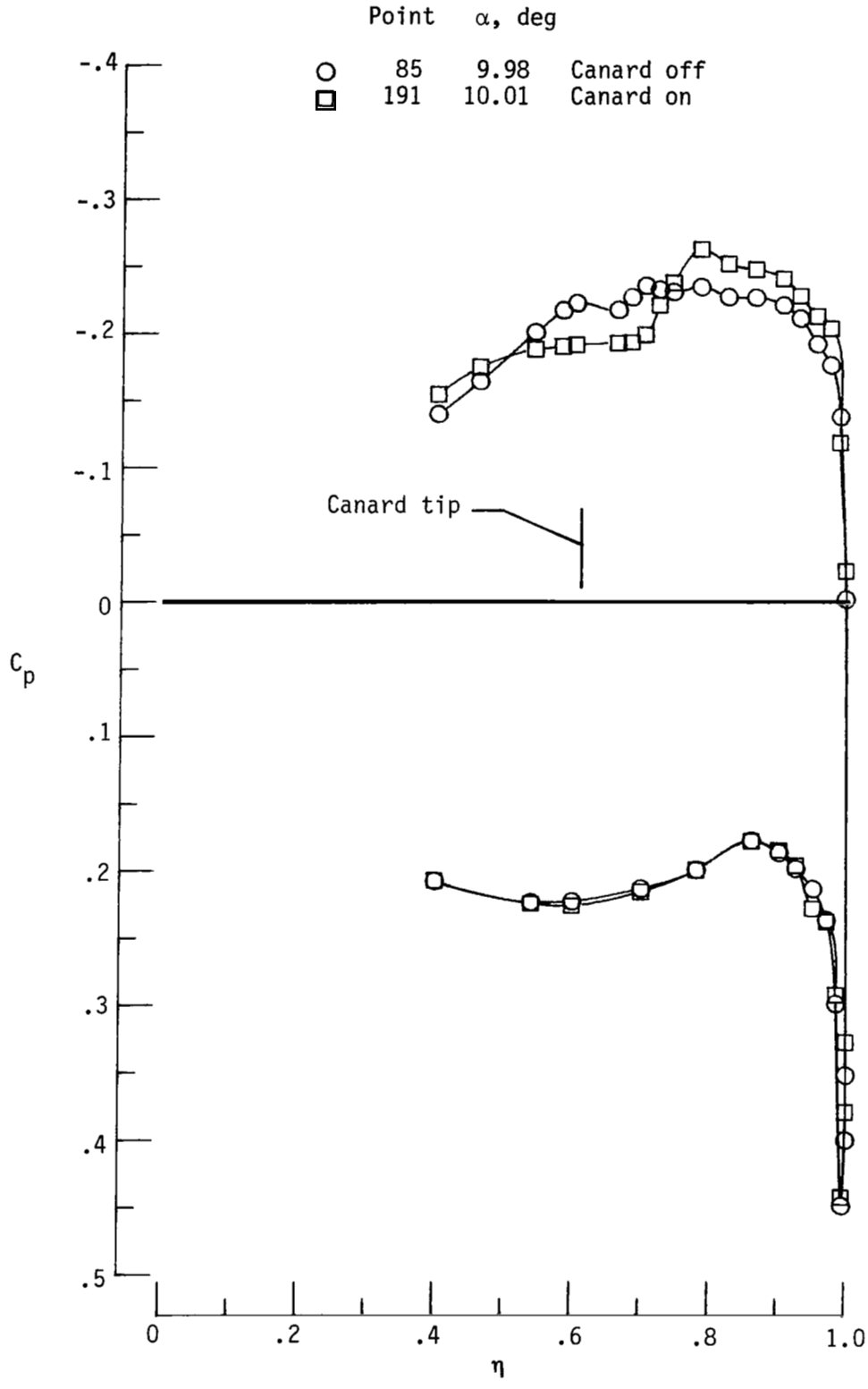
(c) $\alpha \approx 12°$.

Figure 10.- Concluded.



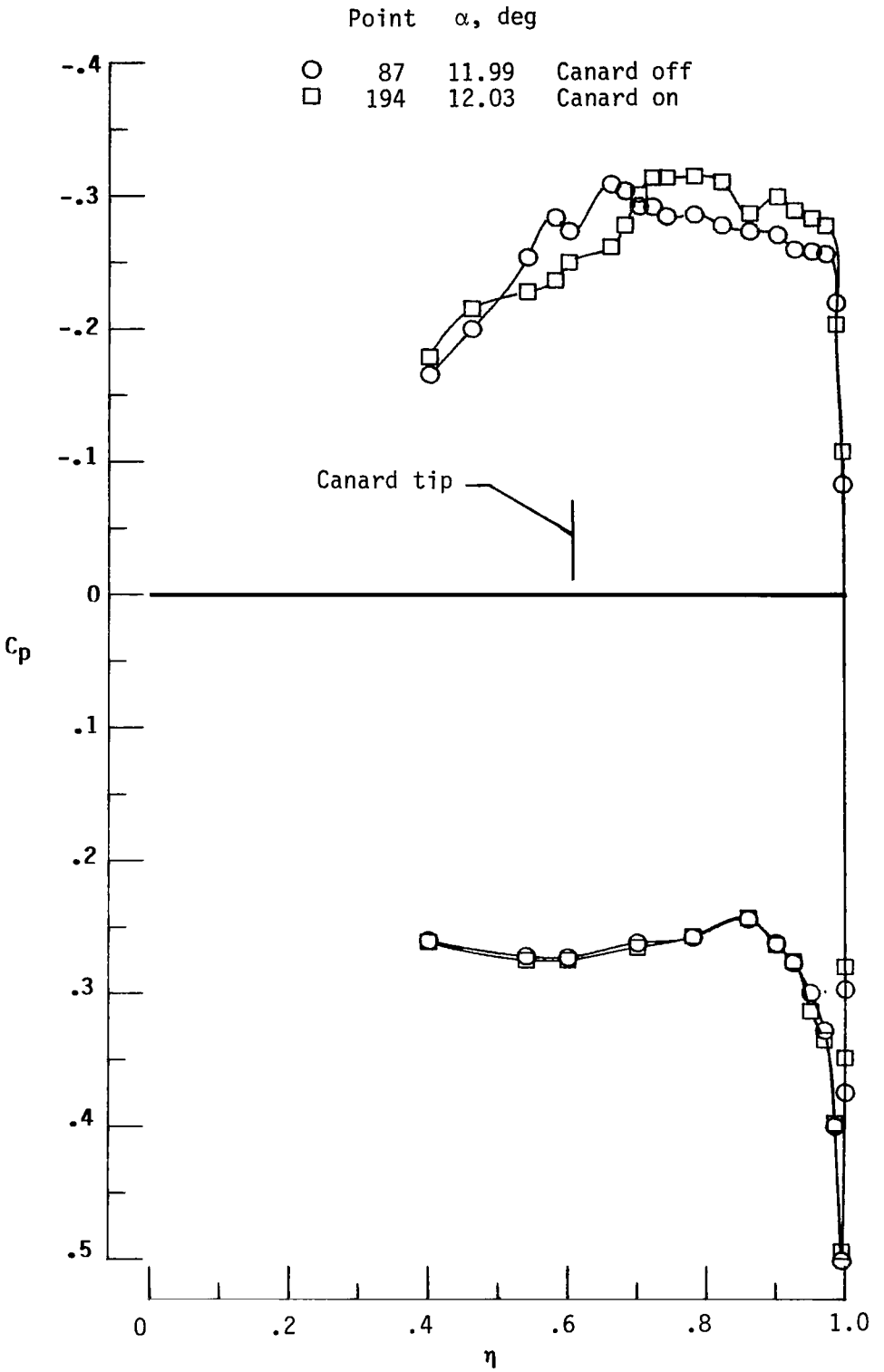
(a) $\alpha \approx 8°$.

Figure 11.- Canard influence on cambered wing-body (nose 1) pressure distributions. $\delta_c = 0°$; $x/\ell = 0.55$; $M = 1.62$.



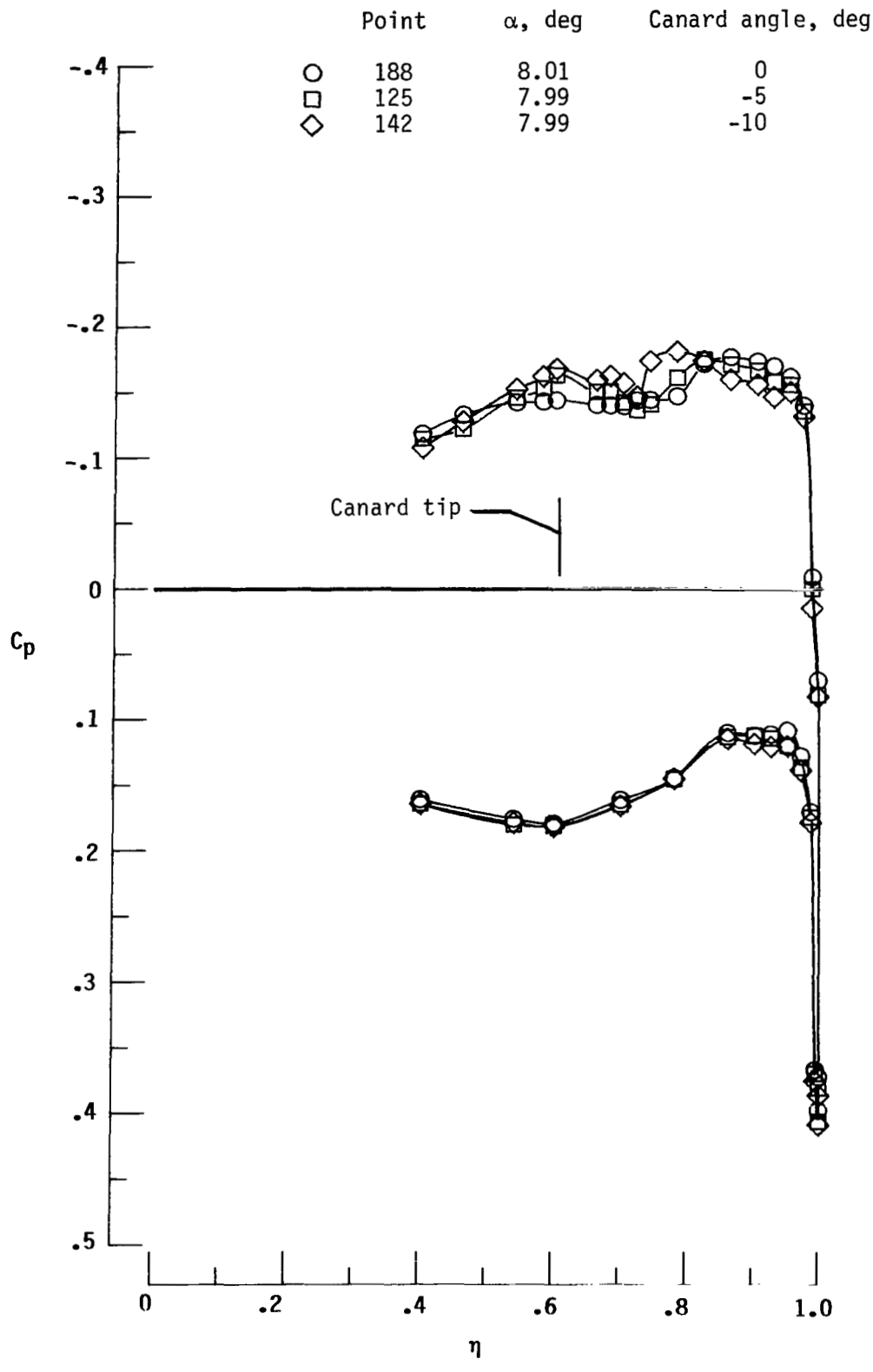
(b) $\alpha \approx 10°$.

Figure 11.- Continued.



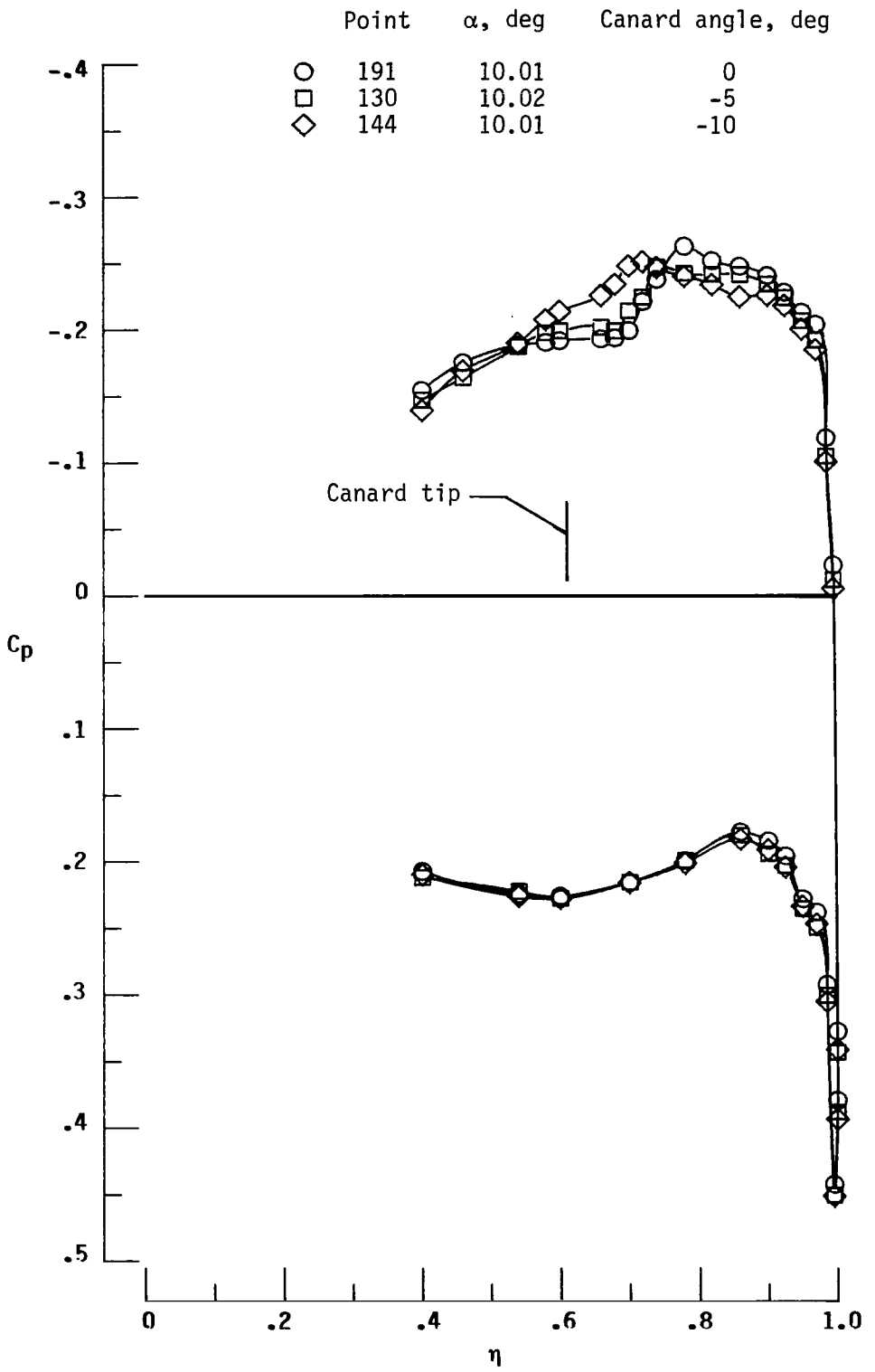
(c) $\alpha \approx 12°$.

Figure 11.- Concluded.



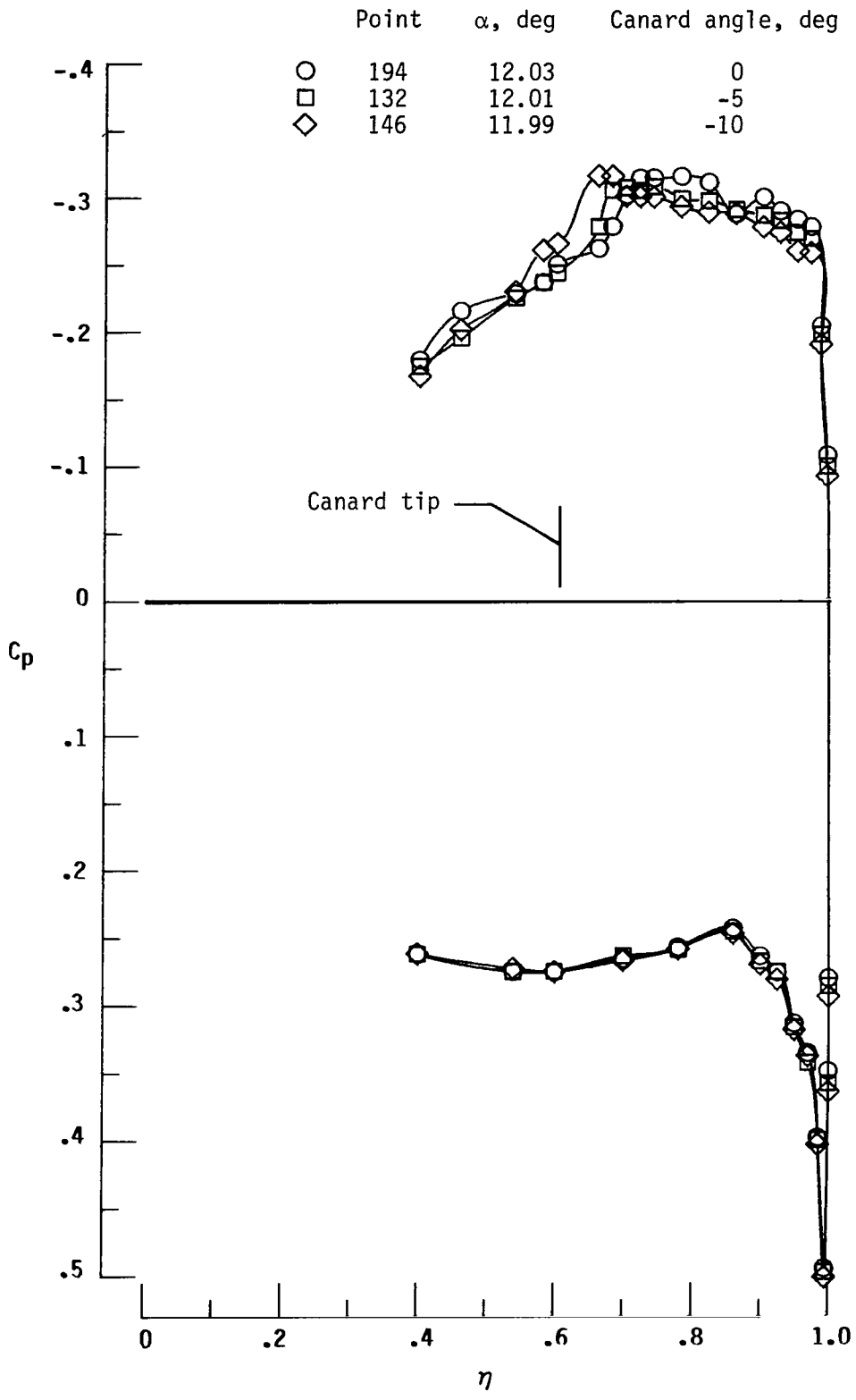
(a) $\alpha \approx 8°$.

Figure 12.- Effect of canard incidence angle on cambered-wing pressure distributions. $x/\ell = 0.55$; $M = 1.62$.



(b) $\alpha \approx 10°$.

Figure 12.- Continued.



(c) $\alpha \approx 12°$.

Figure 12.- Concluded.

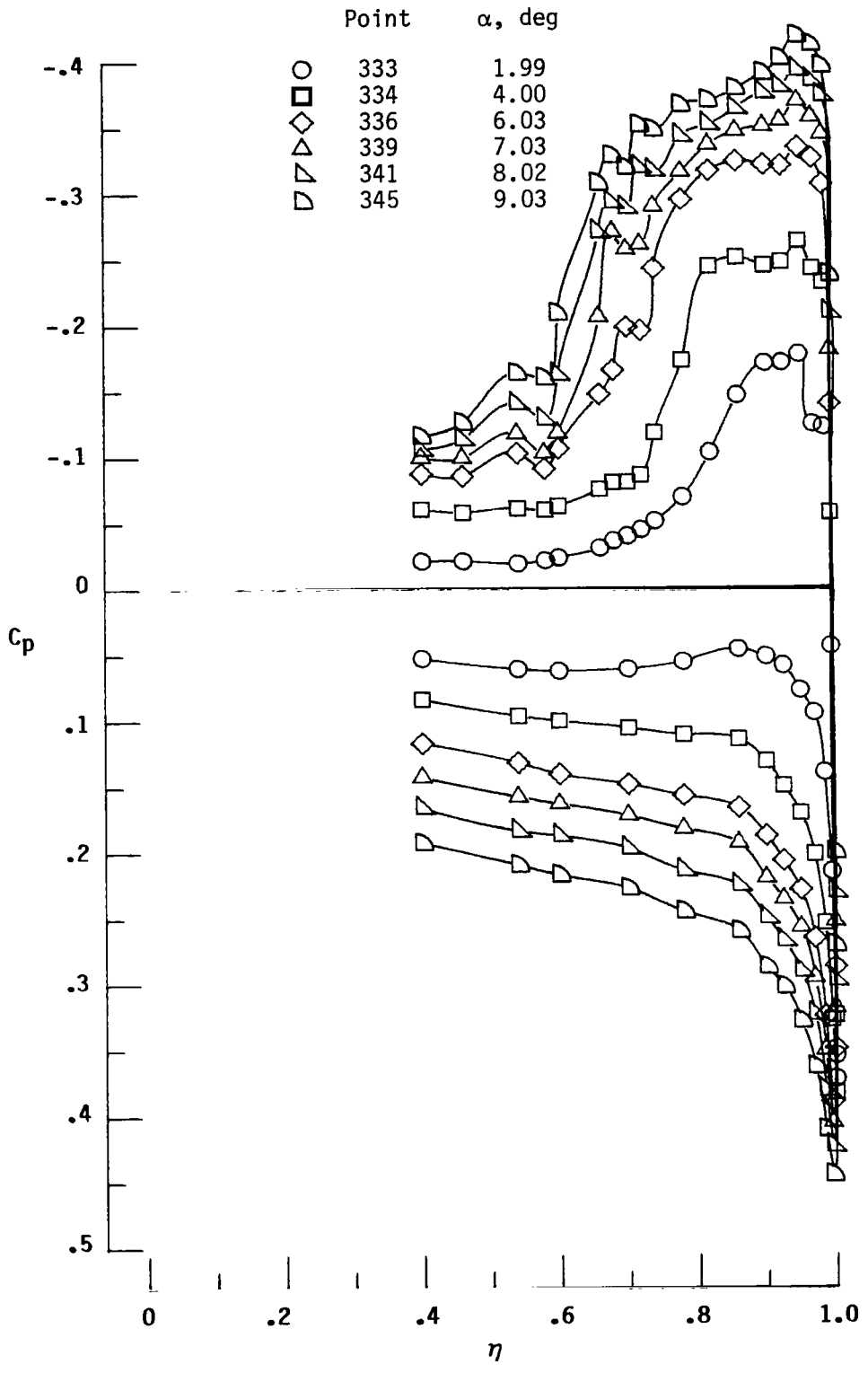
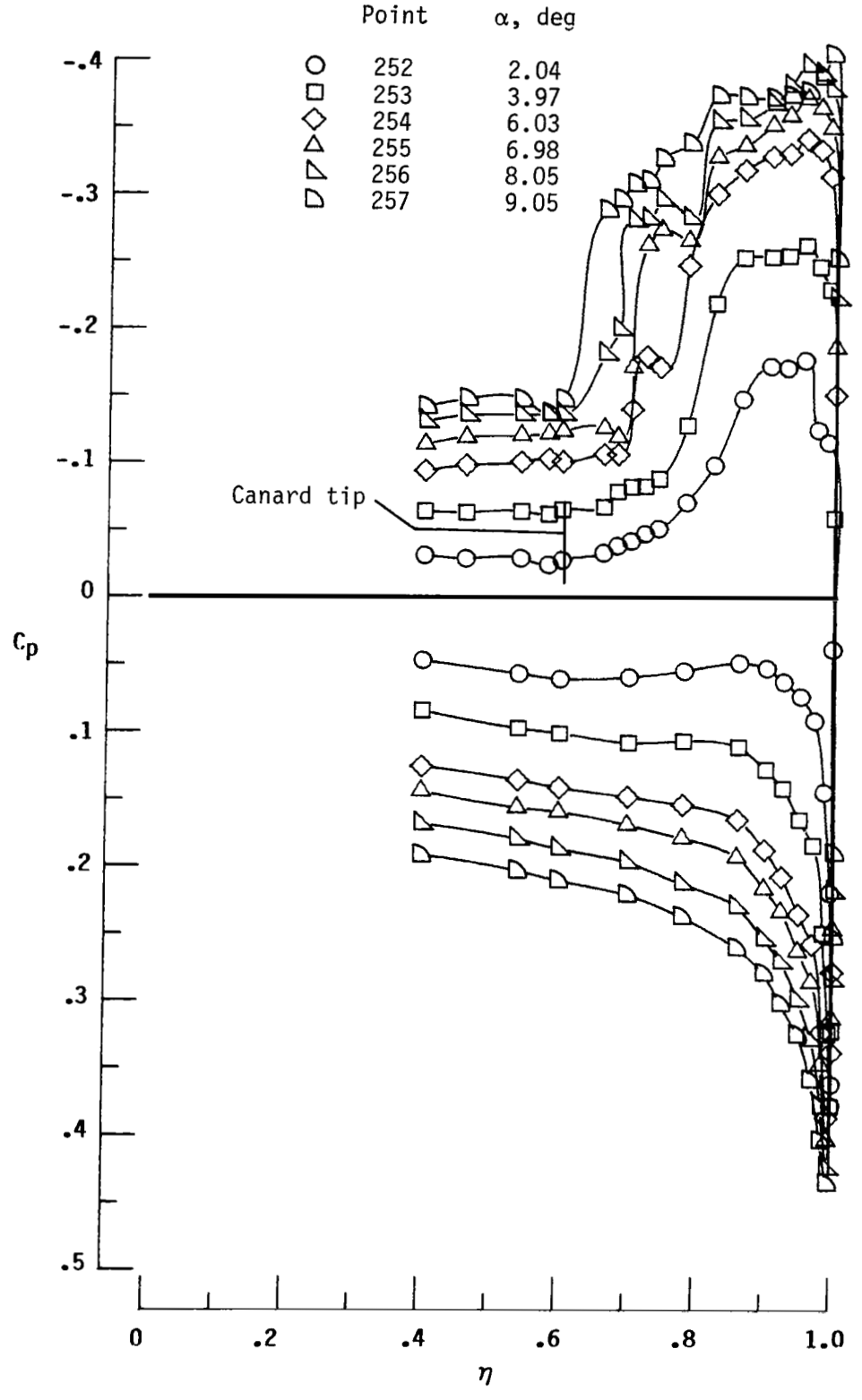
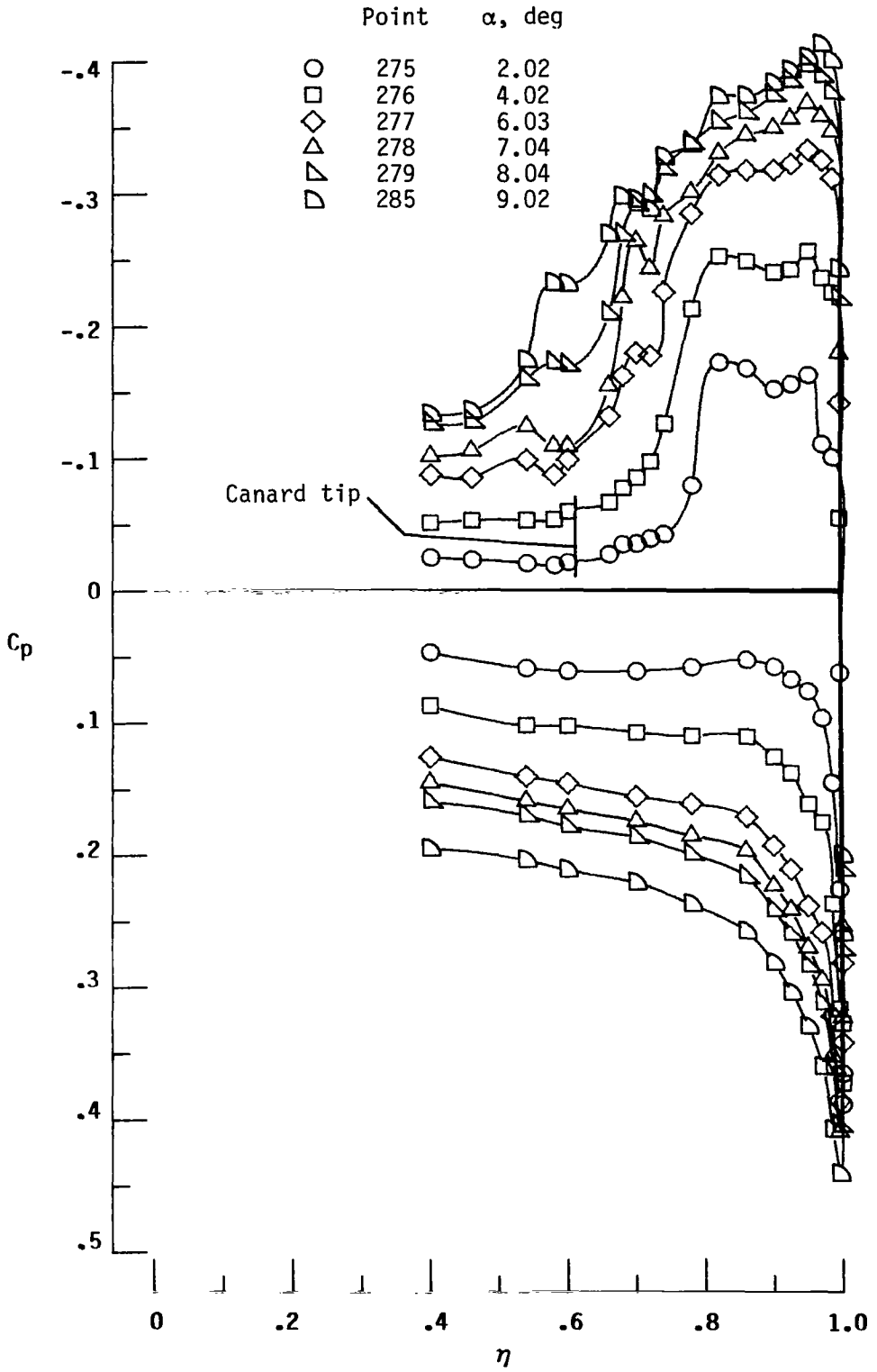


Figure 13.- Summary of pressure-coefficient data for flat wing-body model (nose 1). $x/\ell = 0.55$; $M = 1.62$.



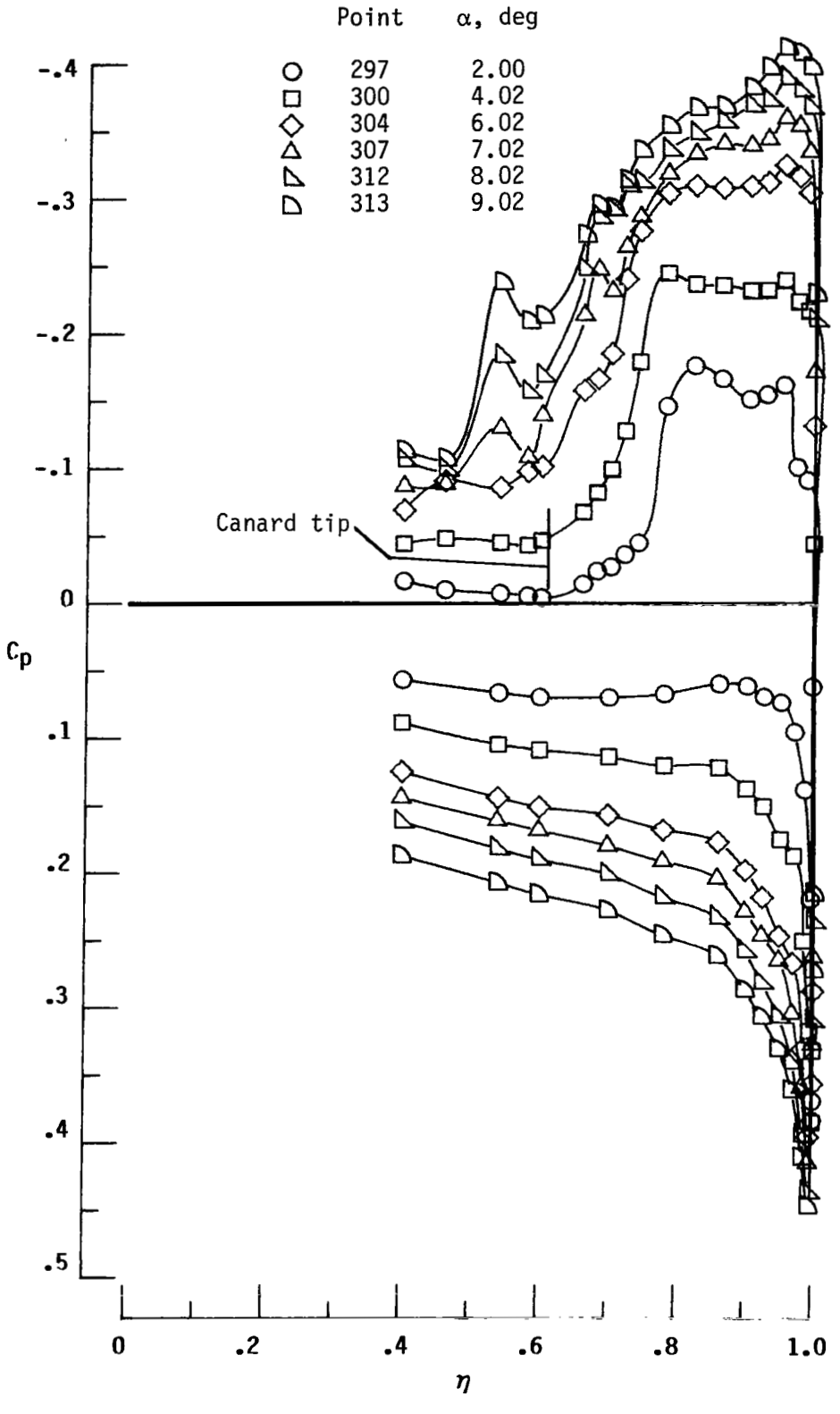
(a) $\delta_c = 0°$.

Figure 14.- Summary of pressure-coefficient data for flat wing-body-canard model (nose 1). $x/\ell = 0.55$; $M = 1.62$.



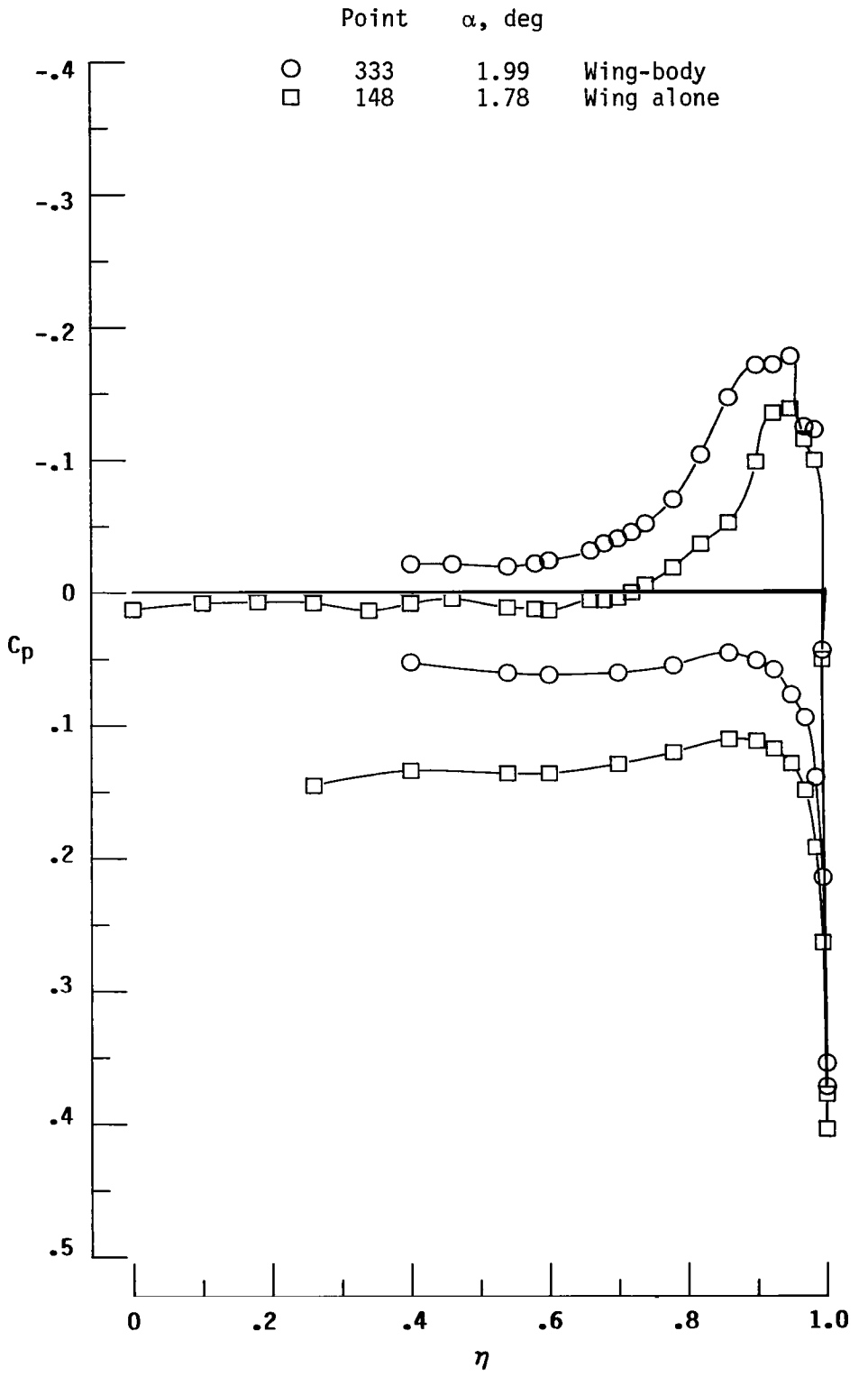
(b) $\delta_c = -5°$.

Figure 14.- Continued.



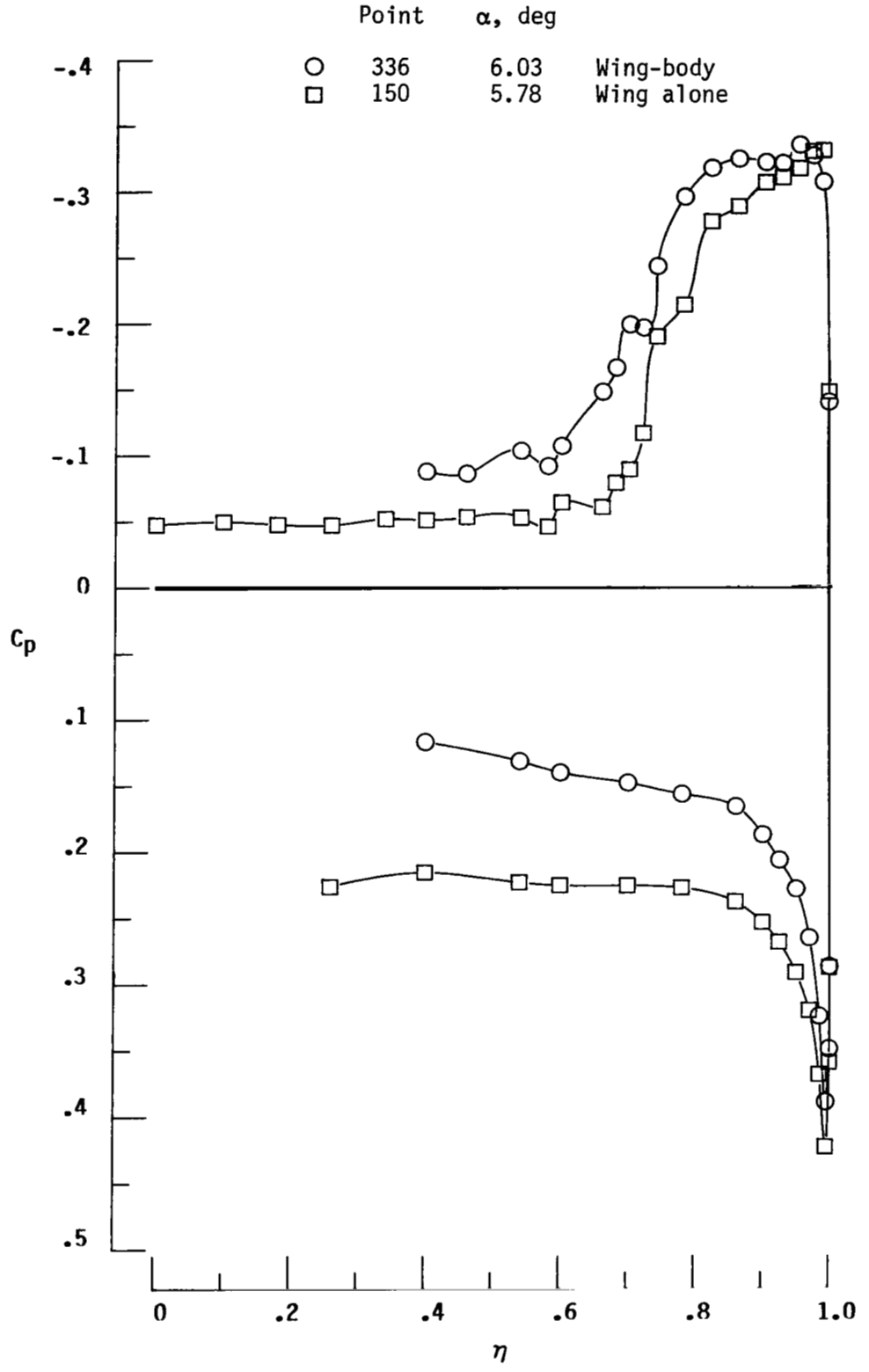
(c) $\delta_c = -10°$.

Figure 14.- Concluded.



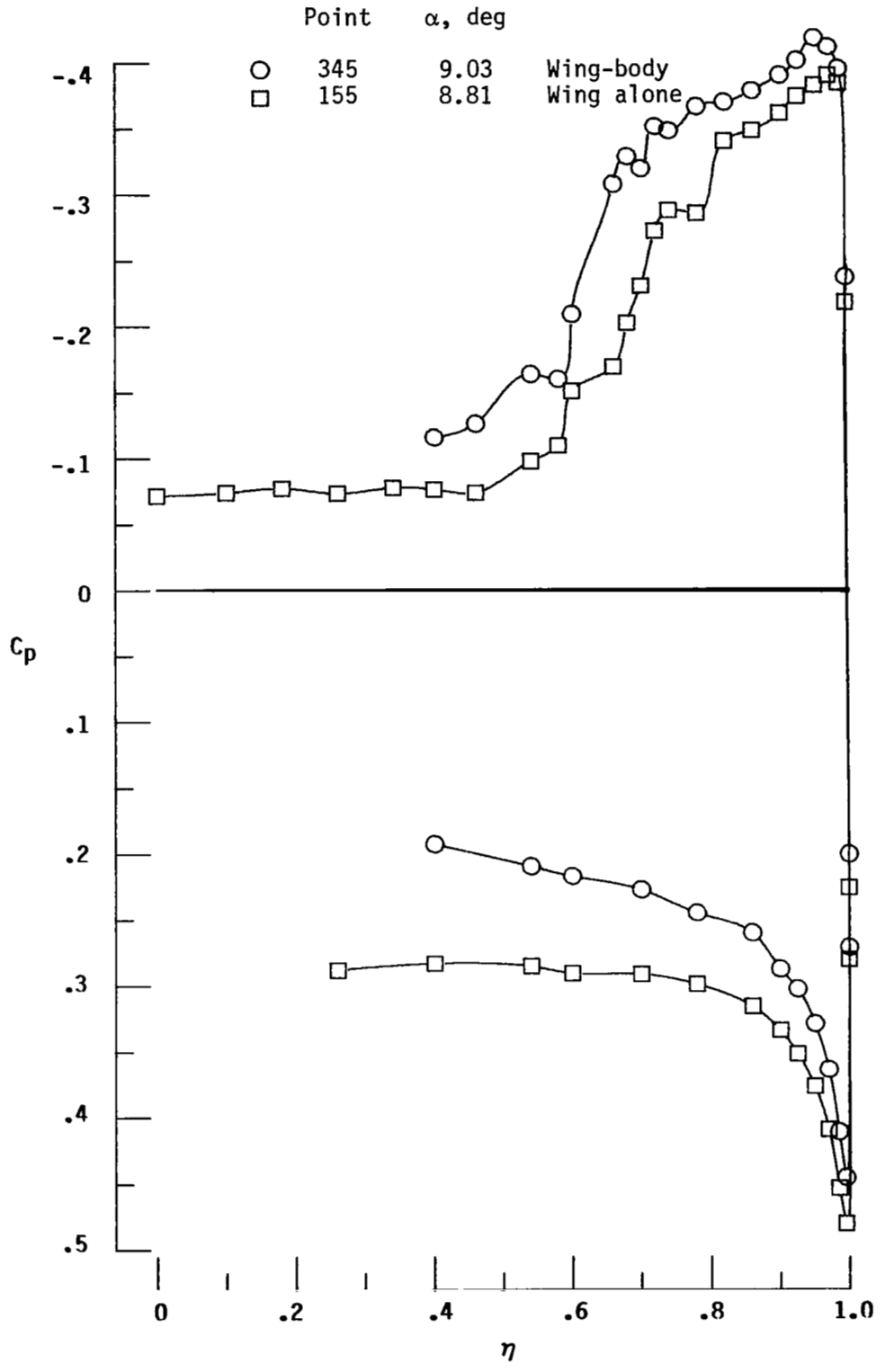
(a) $\alpha \approx 2°$.

Figure 15.- Effect of cone-cylinder body (nose 1) on flat-wing pressure distributions. $x/\ell = 0.55$; $M = 1.62$.



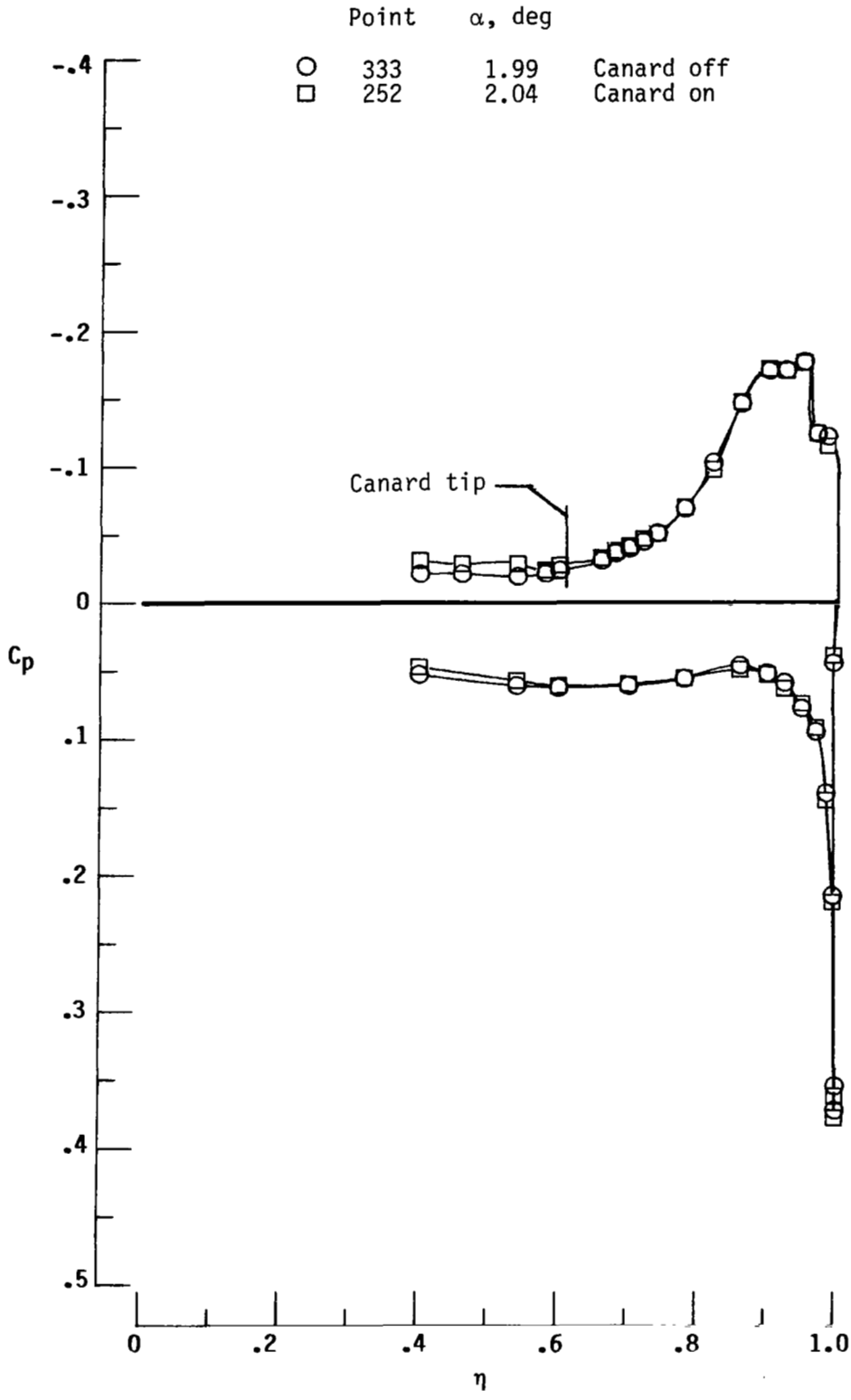
(b) $\alpha \approx 6°$.

Figure 15.- Continued.



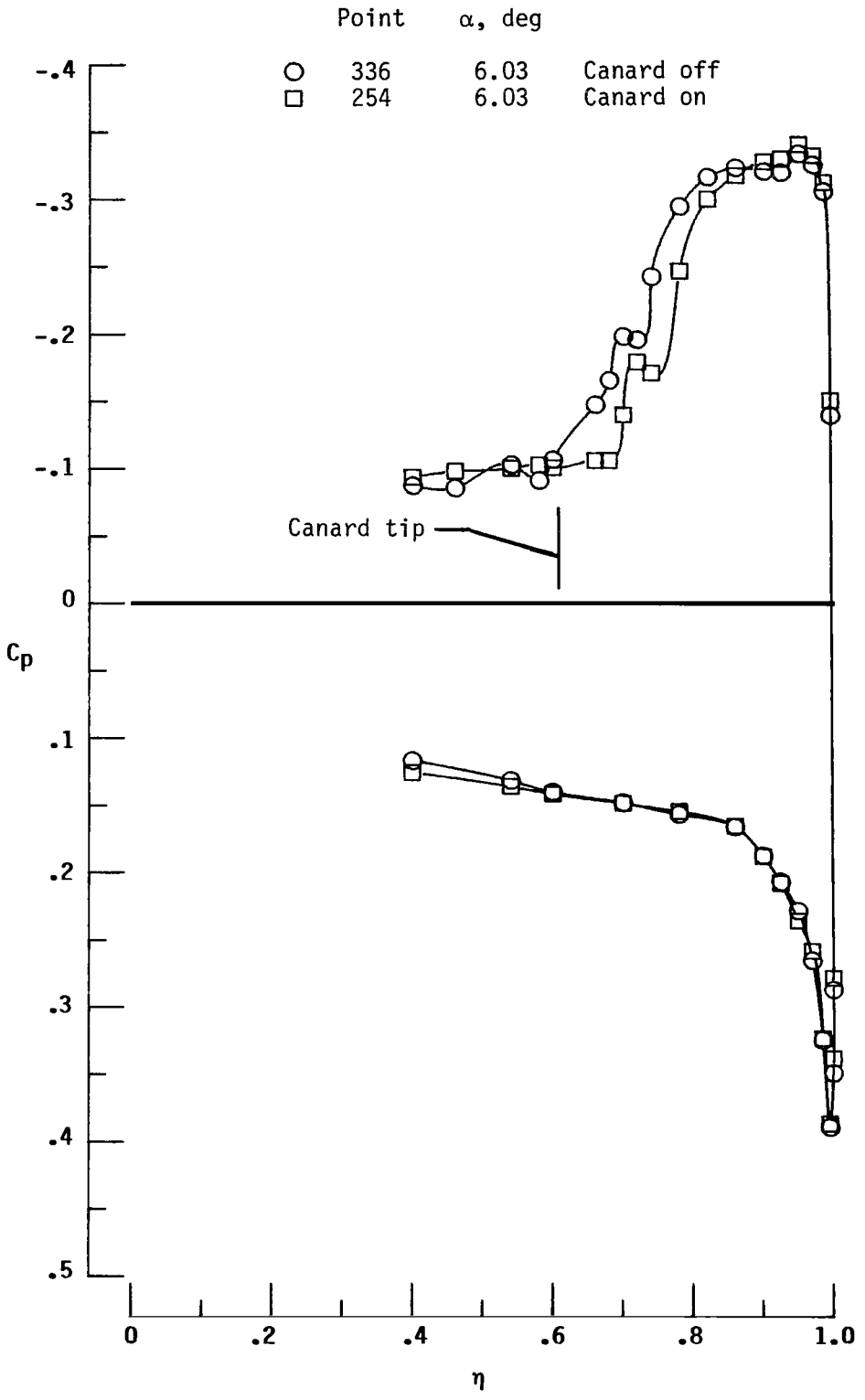
(c) $\alpha \approx 9°$.

Figure 15.- Concluded.



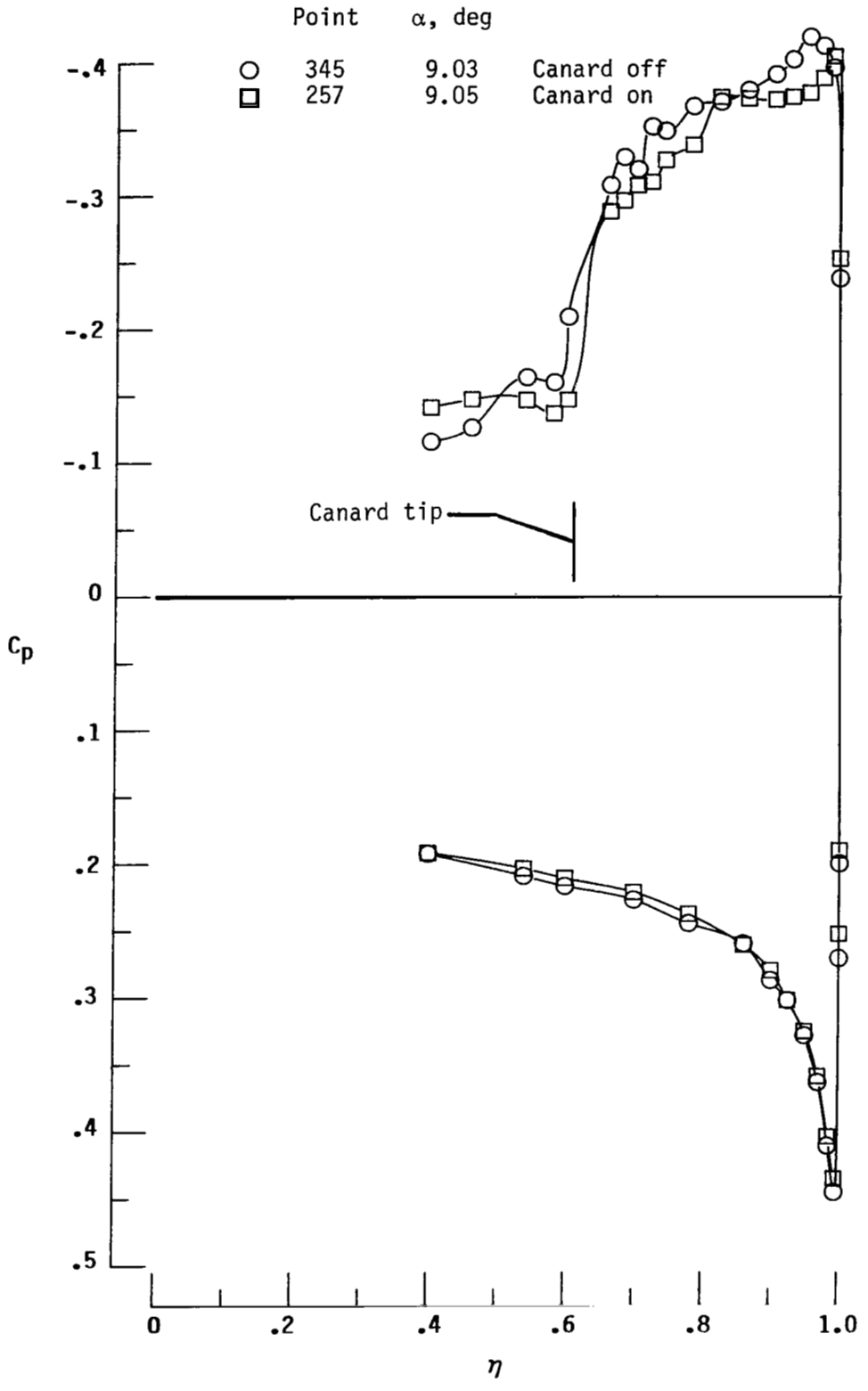
(a) $\alpha \approx 2°$.

Figure 16.- Canard influence on flat wing-body (nose 1) pressure distributions. $x/\ell = 0.55$; $M = 1.62$.



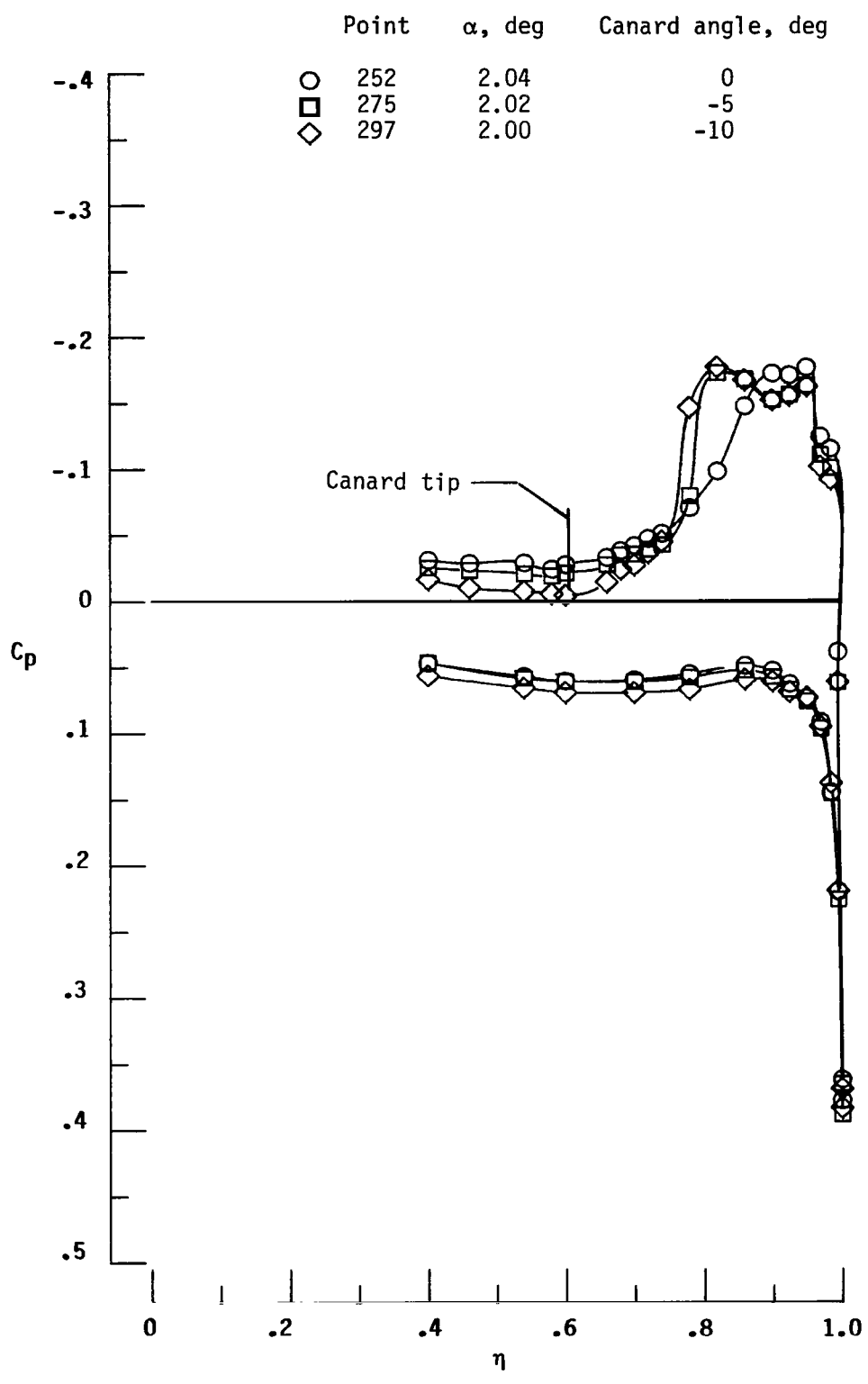
(b) $\alpha \approx 6°$.

Figure 16.- Continued.



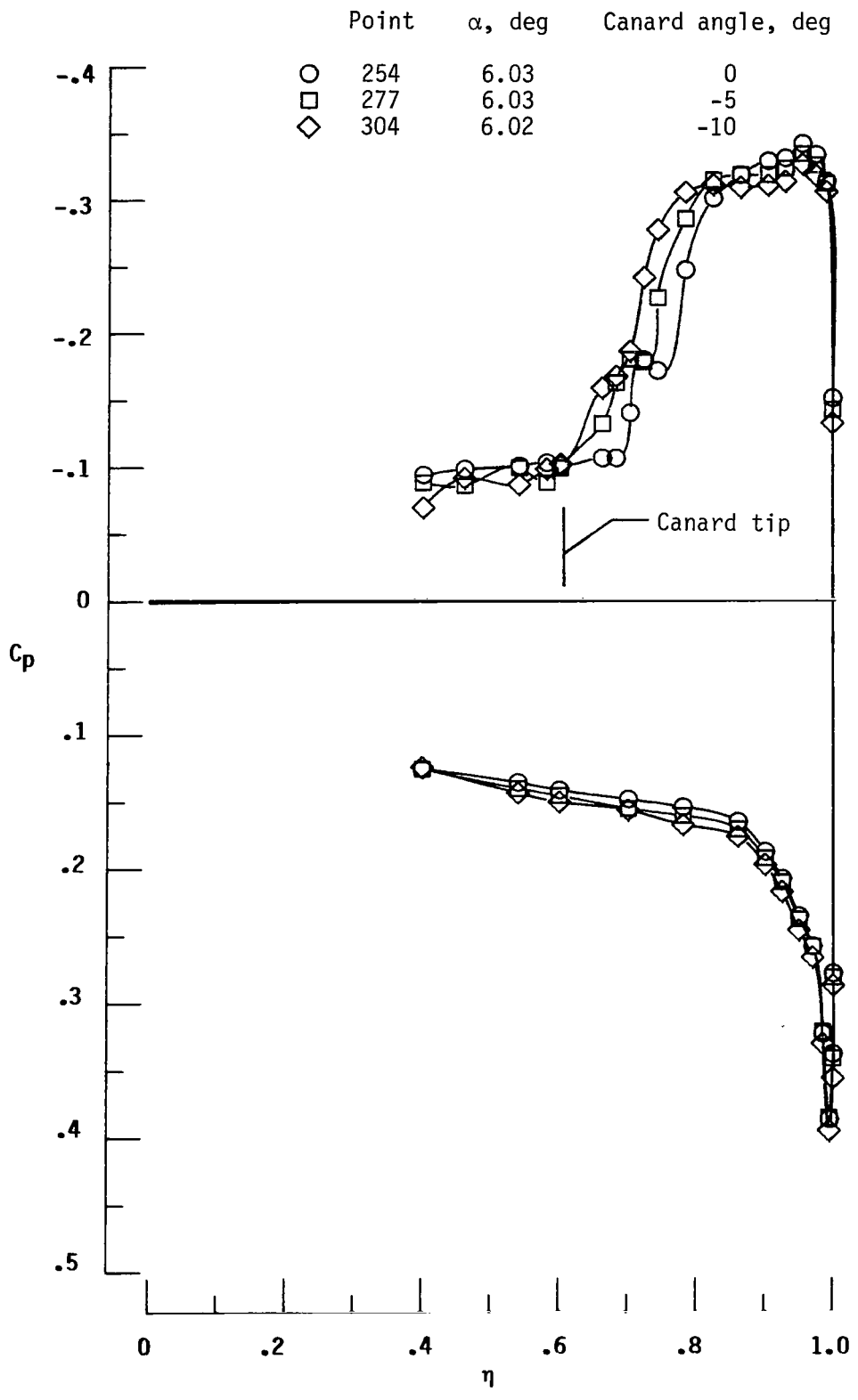
(c) $\alpha \approx 9°$.

Figure 16.- Concluded.



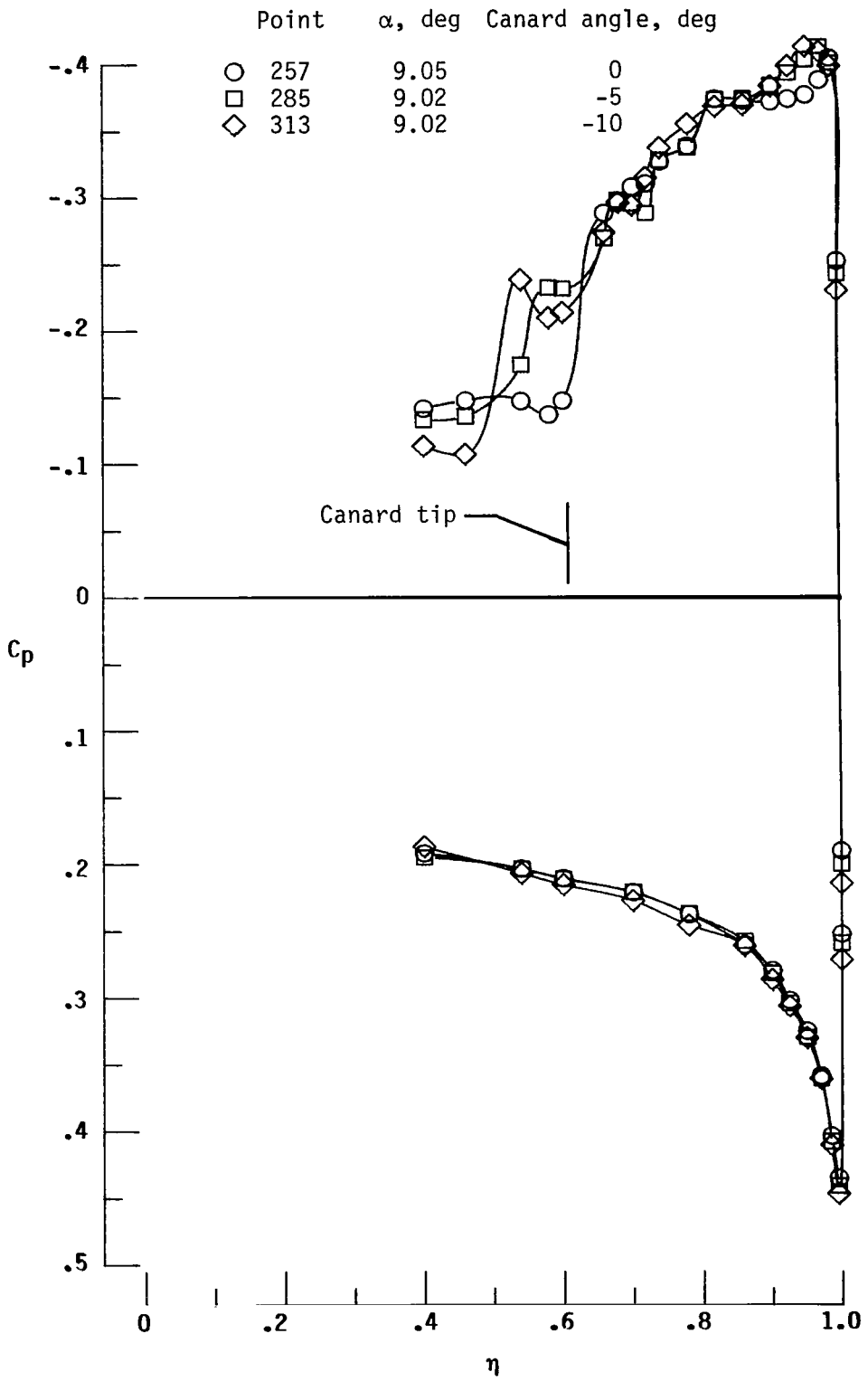
(a) $\alpha \approx 2°$.

Figure 17.- Effect of canard incidence angle on flat-wing pressure distributions. $\delta_c = 0°$; $x/\ell = 0.55$; $M = 1.62$.



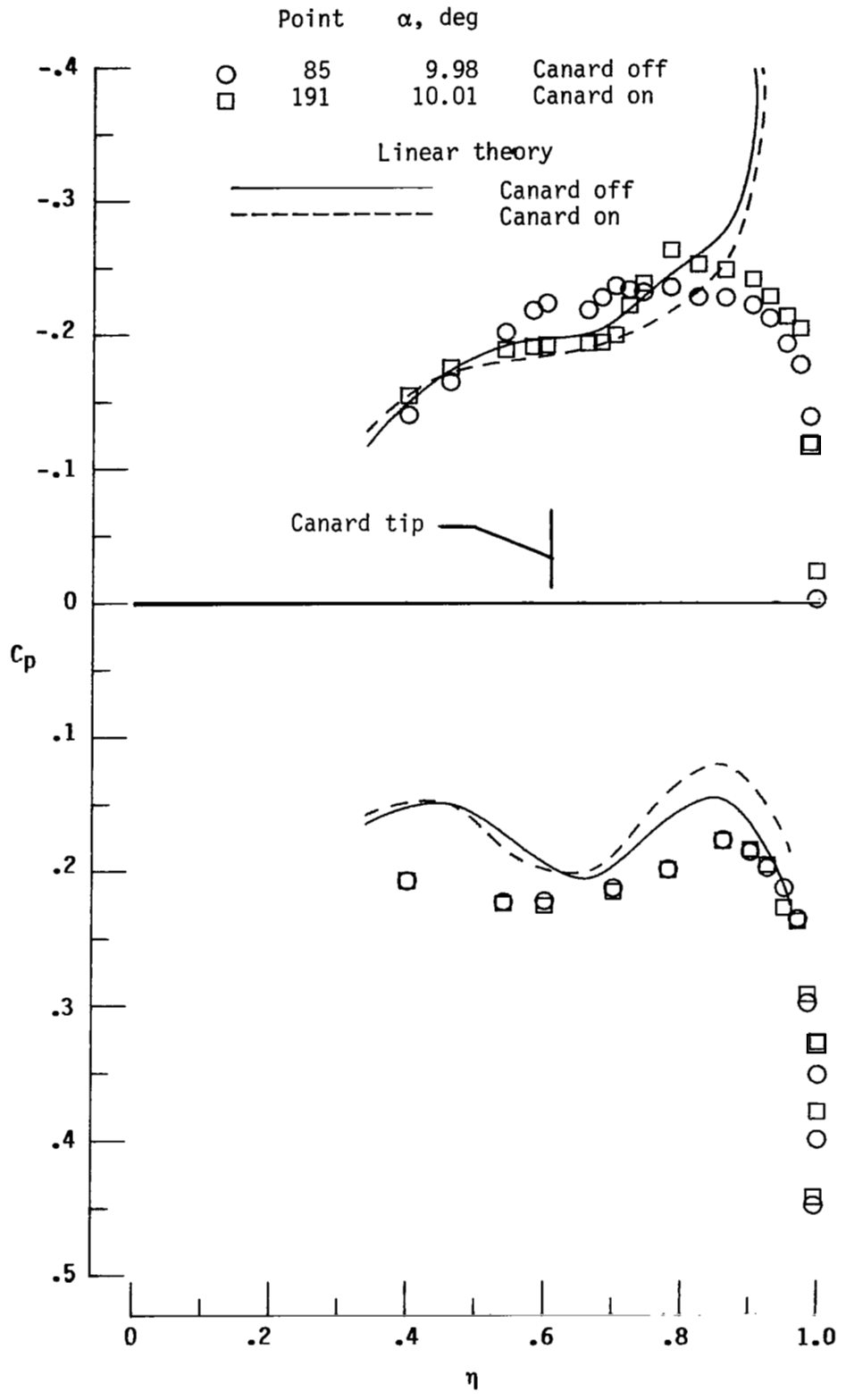
(b) a ≈ 6°.

Figure 17.- Continued.



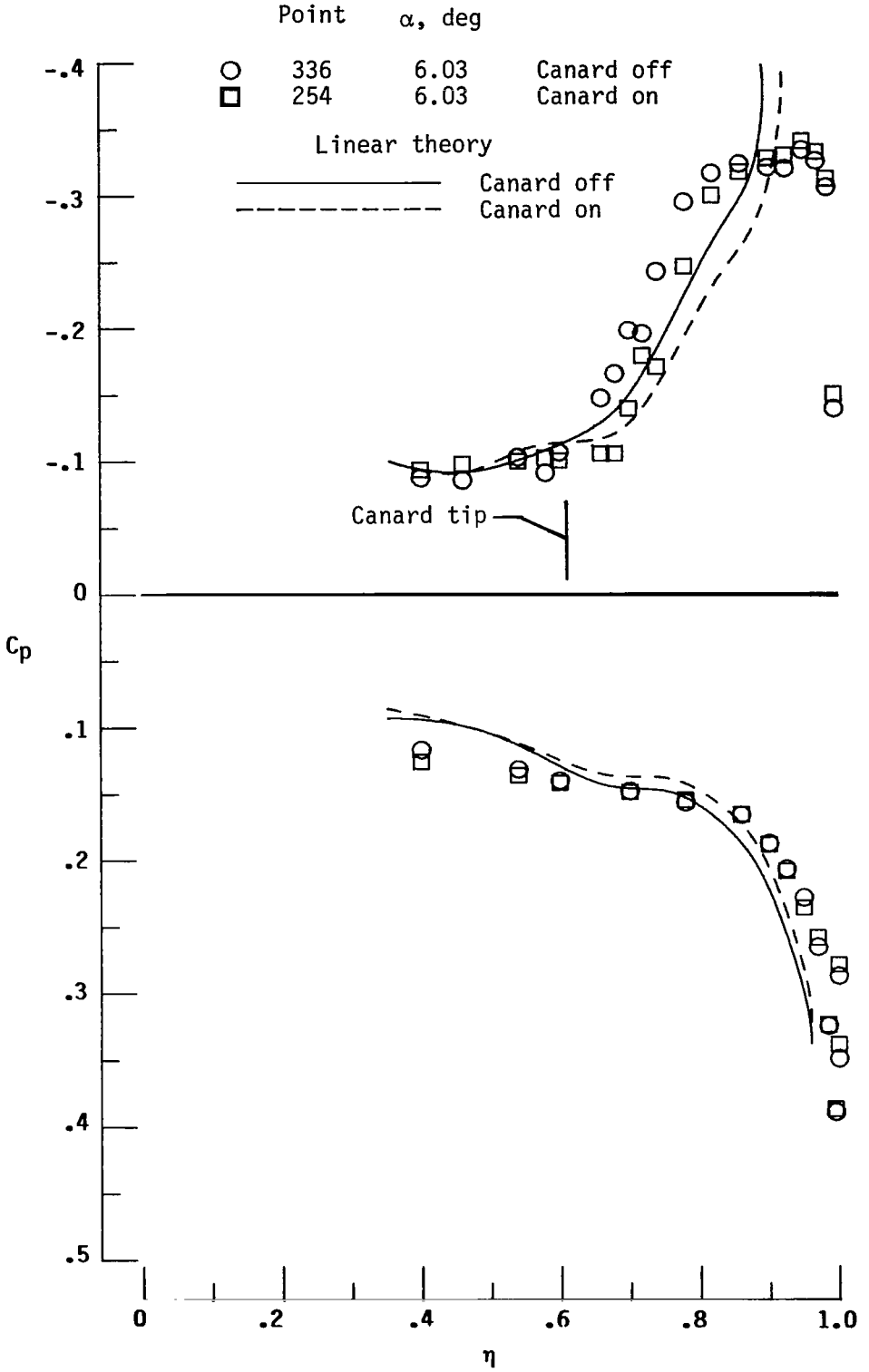
(c) $\alpha \approx 9°$.

Figure 17.- Concluded.



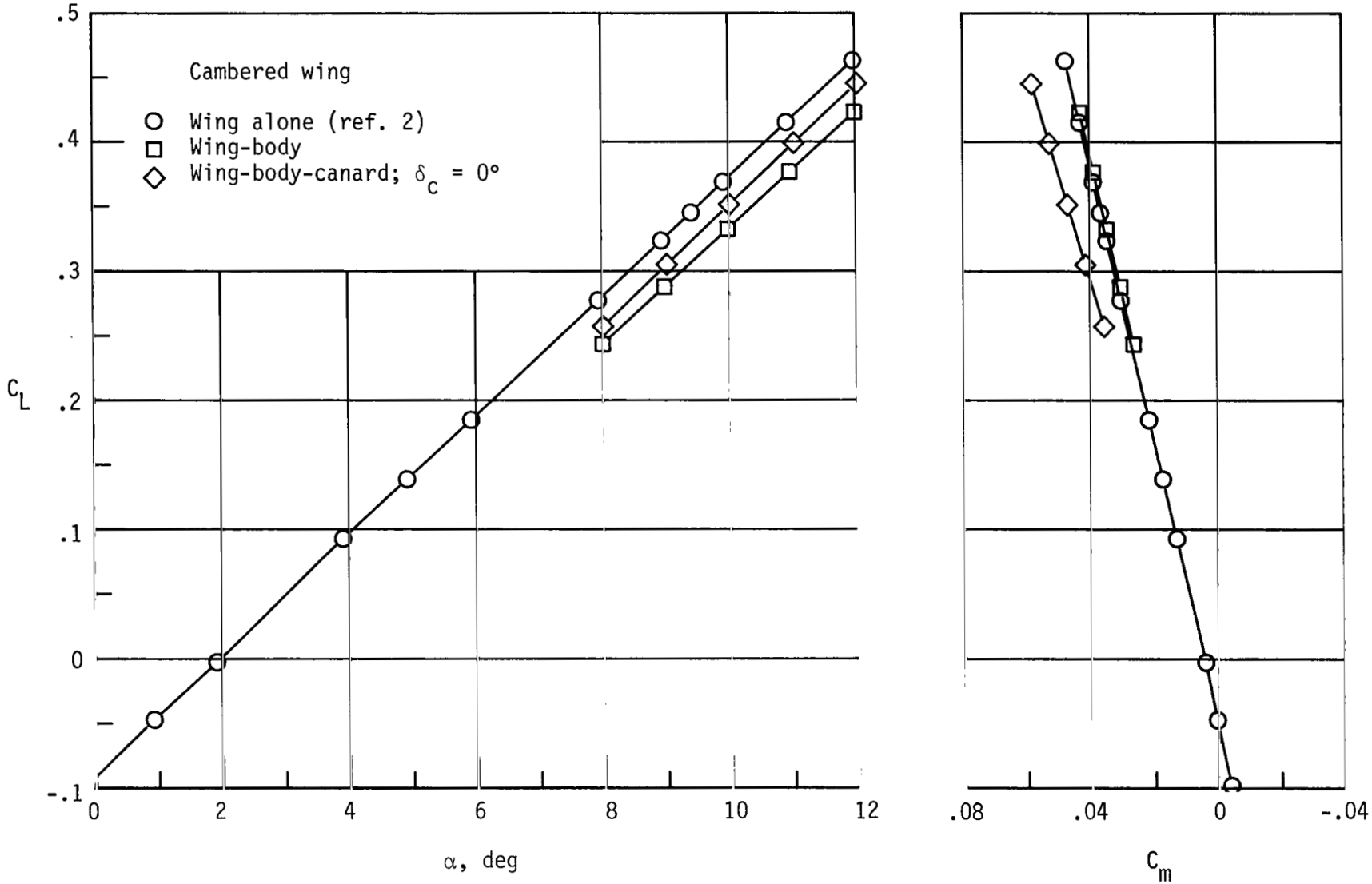
(a) Cambered wing-body model (nose 1). $\alpha \approx 10°$.

Figure 18.- Comparison of linear theory and experimental pressure data for canard on and canard off. $x/\ell = 0.55$; $M = 1.62$.



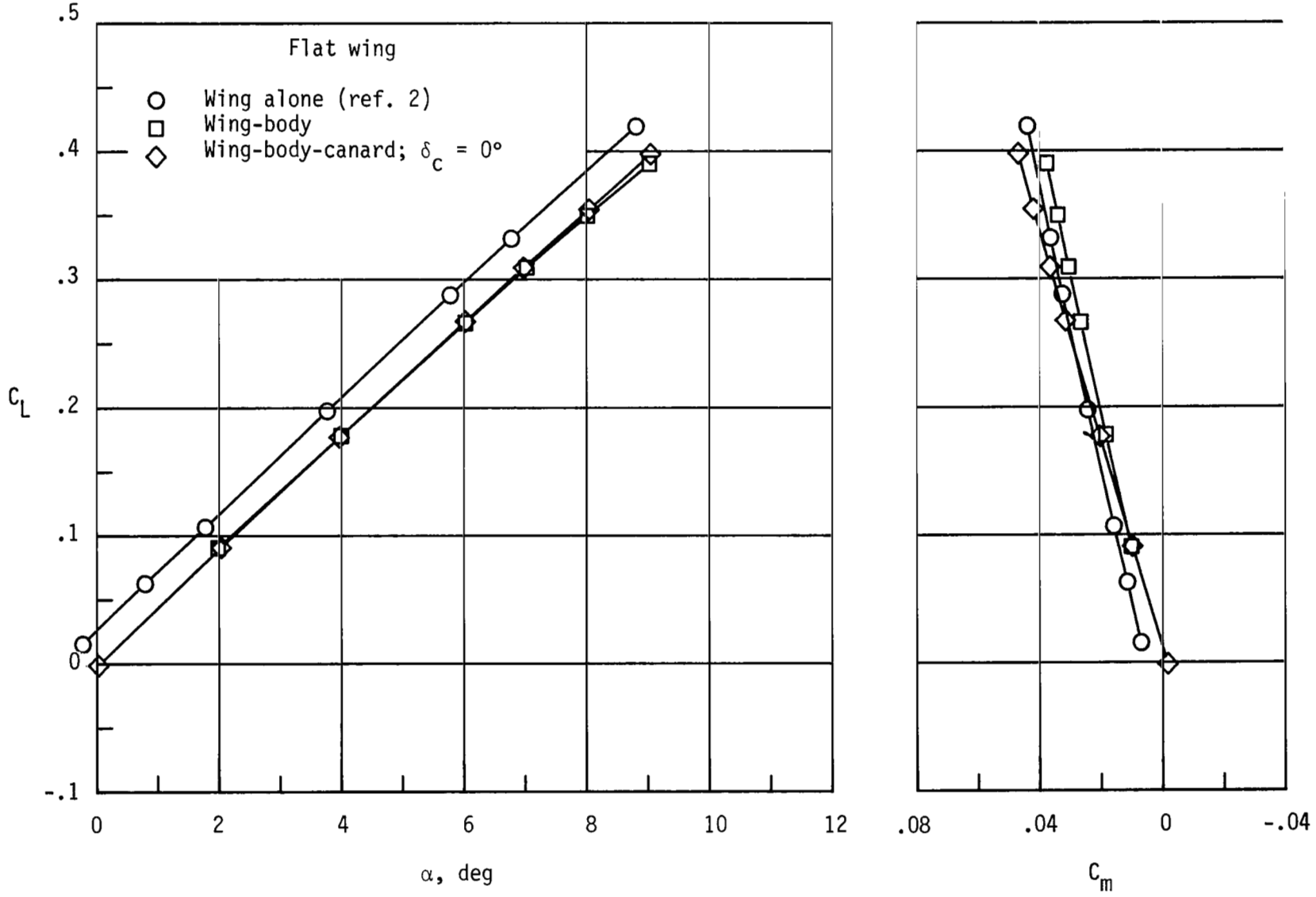
(b) Flat wing-body model (nose 1). $\alpha \approx 6°$.

Figure 18.- Concluded.



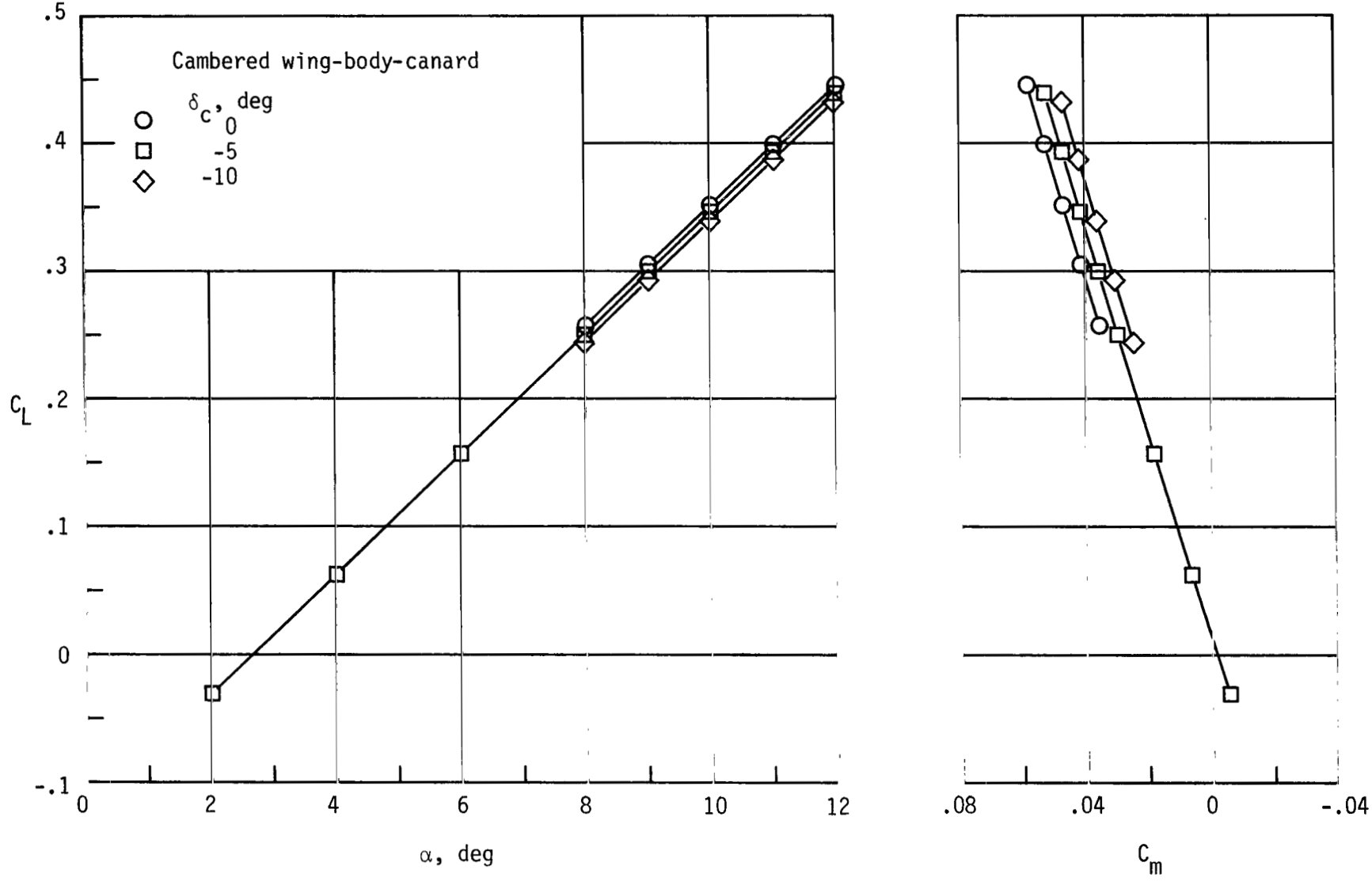
(a) Cambered-wing configurations.

Figure 19.- Effect of body and canards on experimental lift and pitching-moment data at M = 1.62.



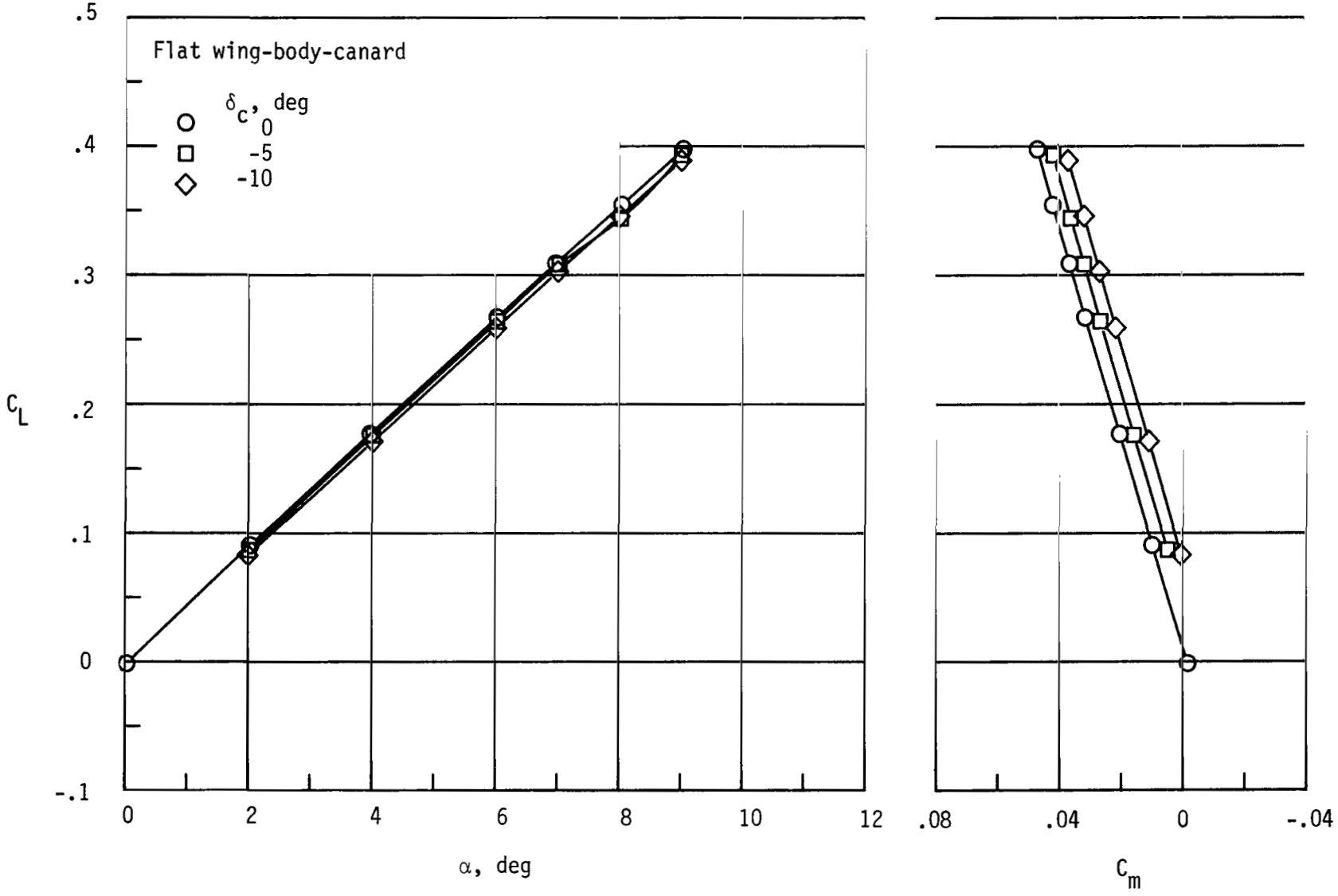
(b) Flat-wing configurations.

Figure 19.- Concluded.



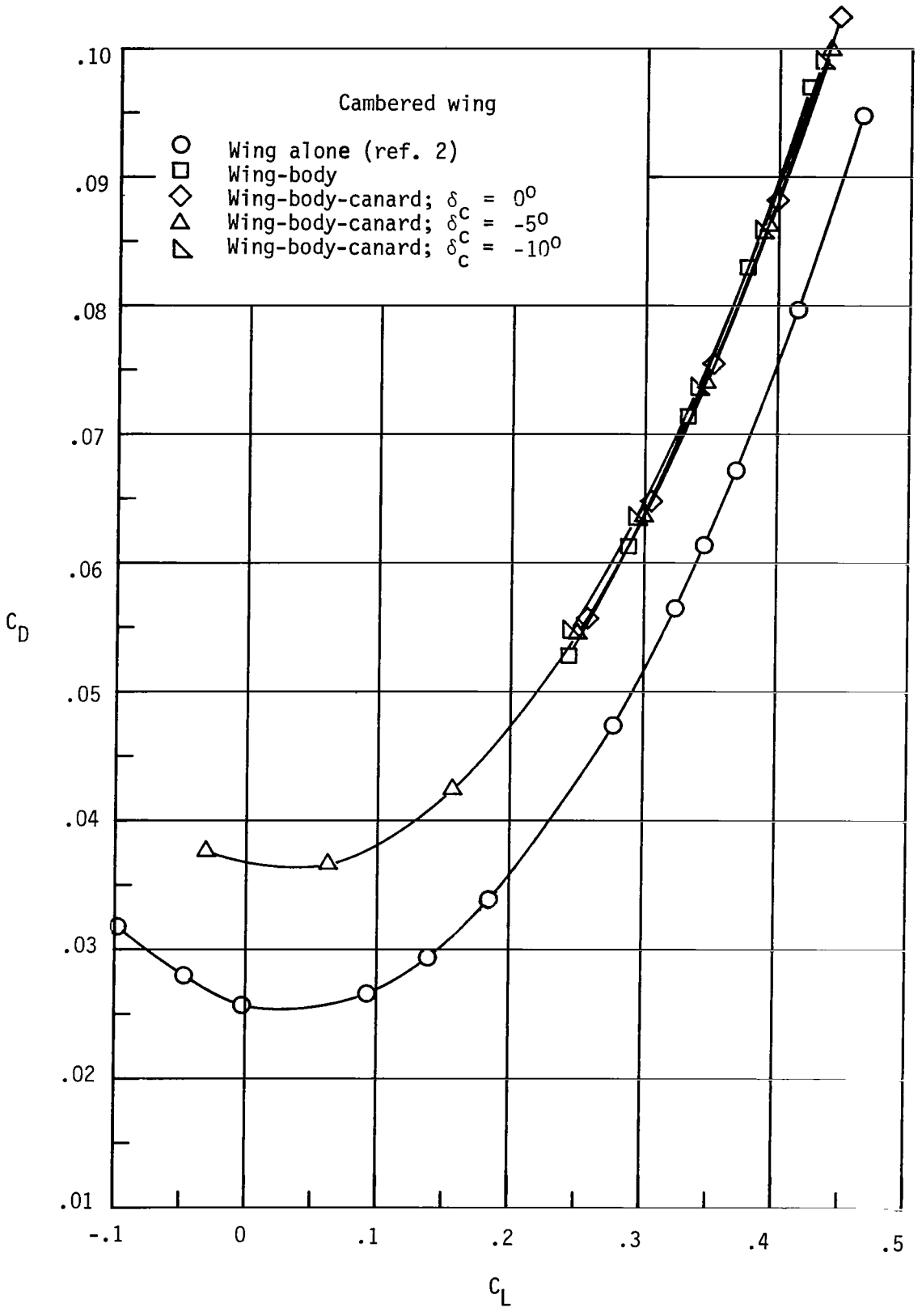
(a) Cambered-wing configurations.

Figure 20.- Effect of canard incidence angle on experimental lift and pitching-moment data at M = 1.62.



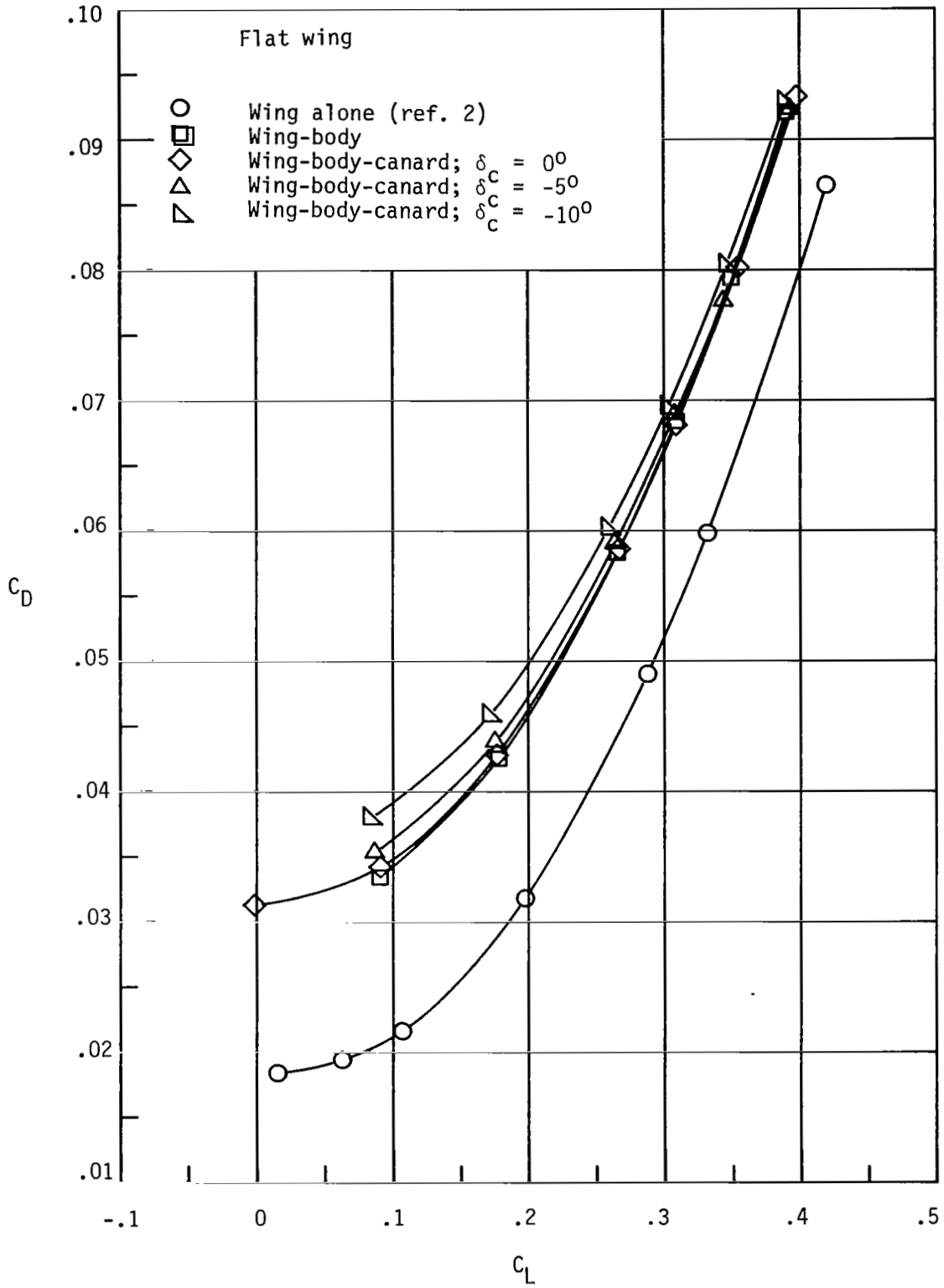
(b) Flat-wing configurations.

Figure 20.- Concluded.



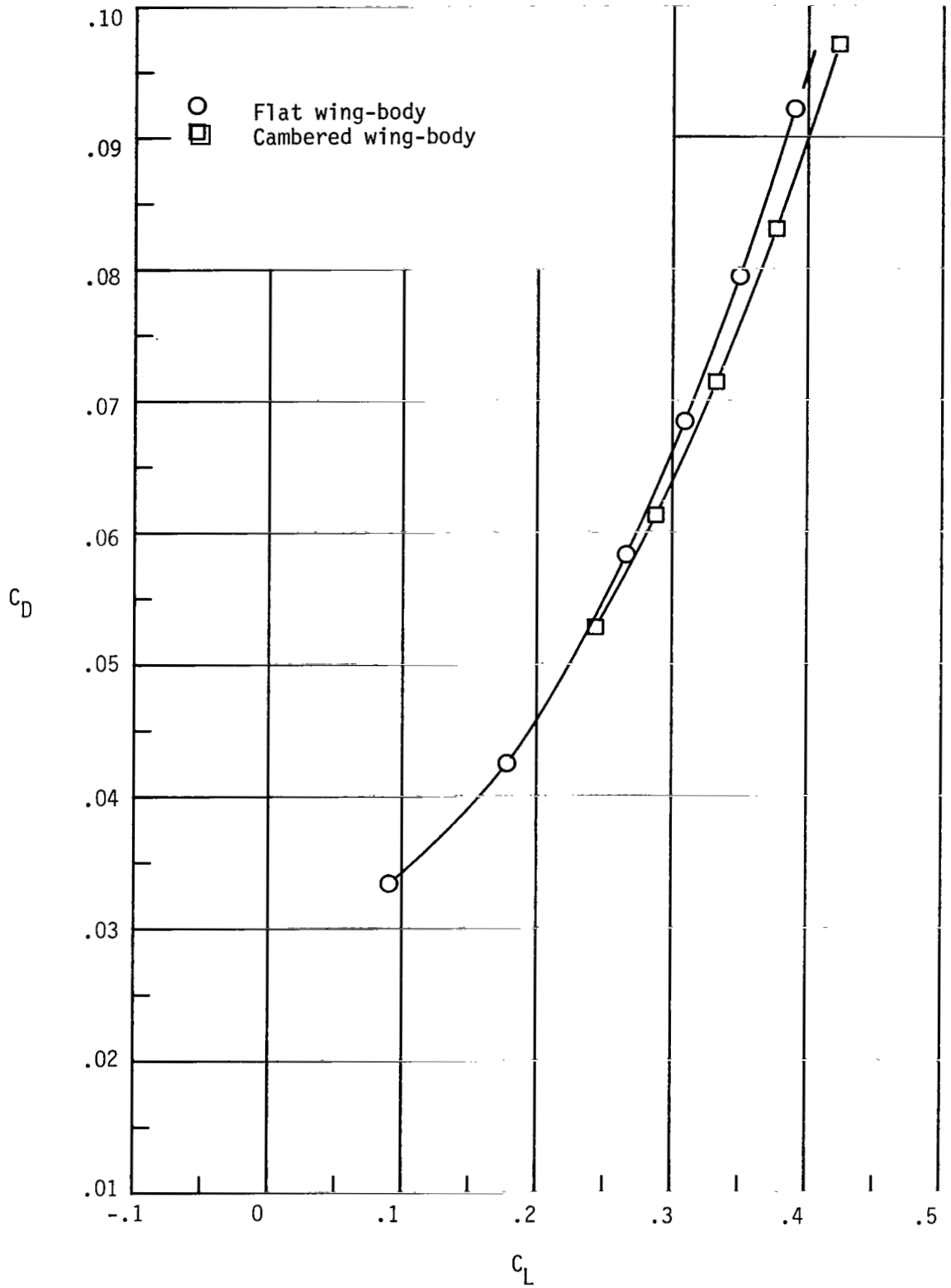
(a) Cambered-wing configurations.

Figure 21.- Summary of experimental drag polars at M = 1.62.



(b) Flat-wing configurations.

Figure 21.- Continued.



(c) Comparison of cambered wing-body and flat wing-body models.

Figure 21.- Concluded.

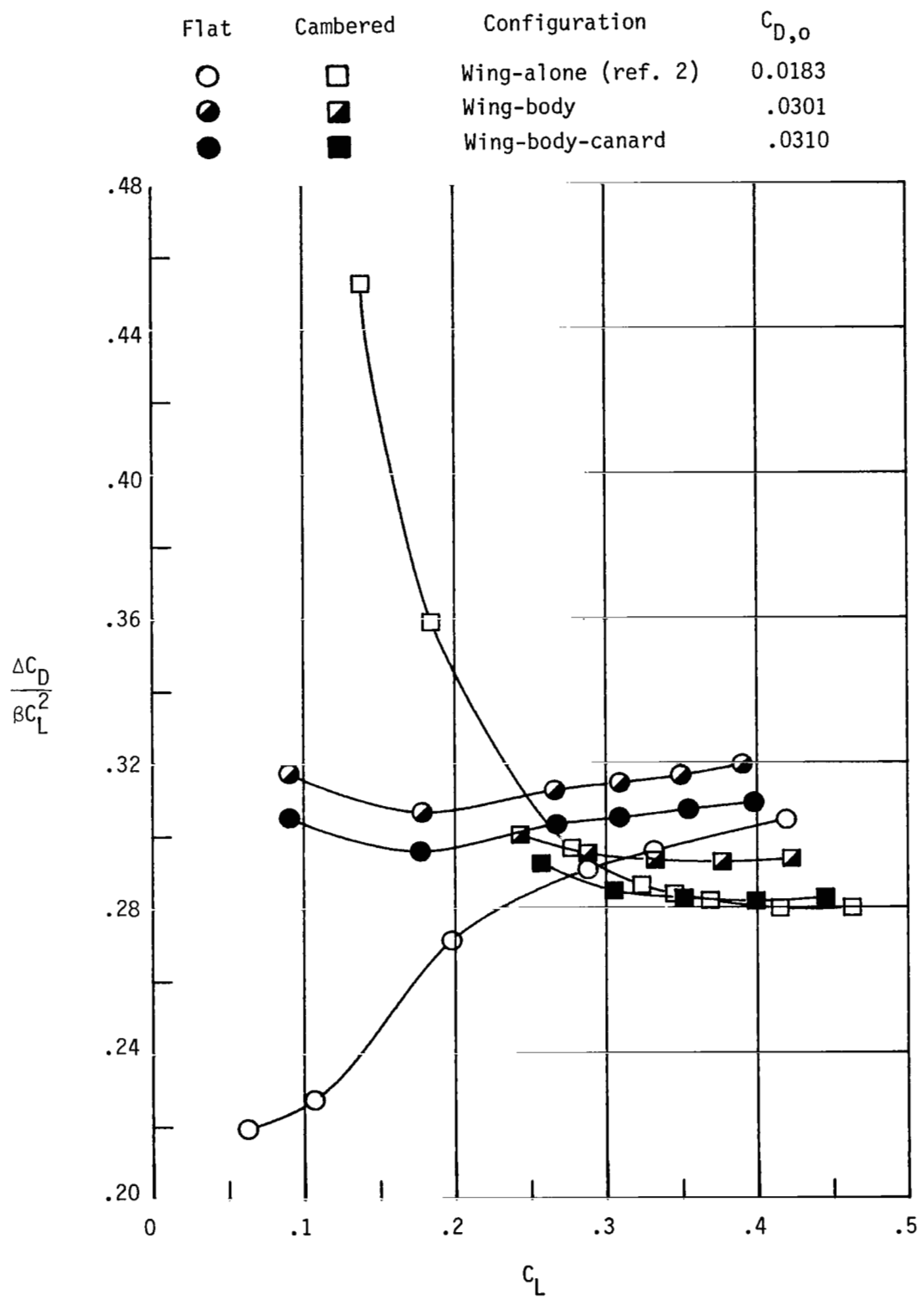
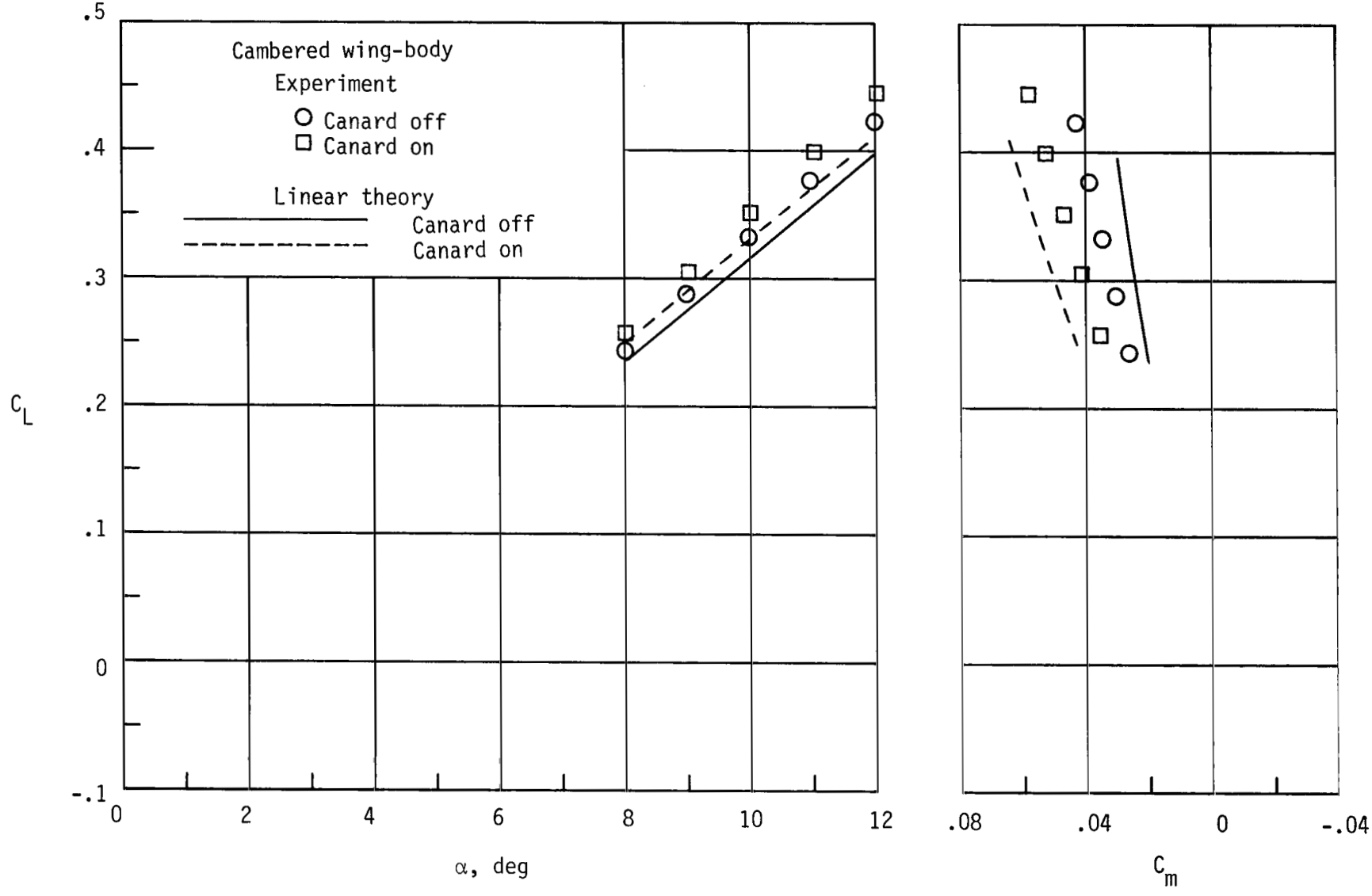
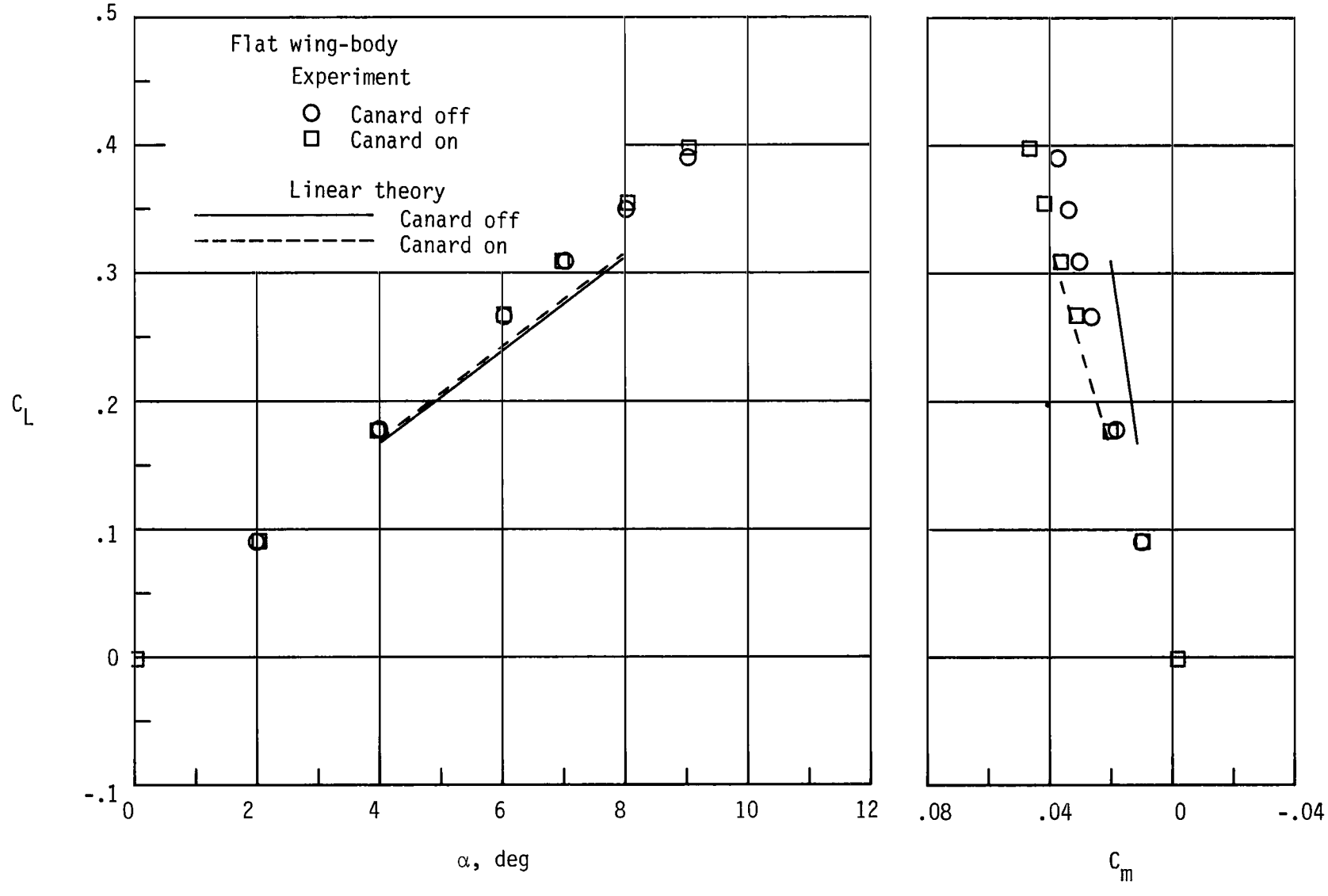


Figure 22.- Assessment of lifting efficiency of cambered-wing and flat-wing configurations.



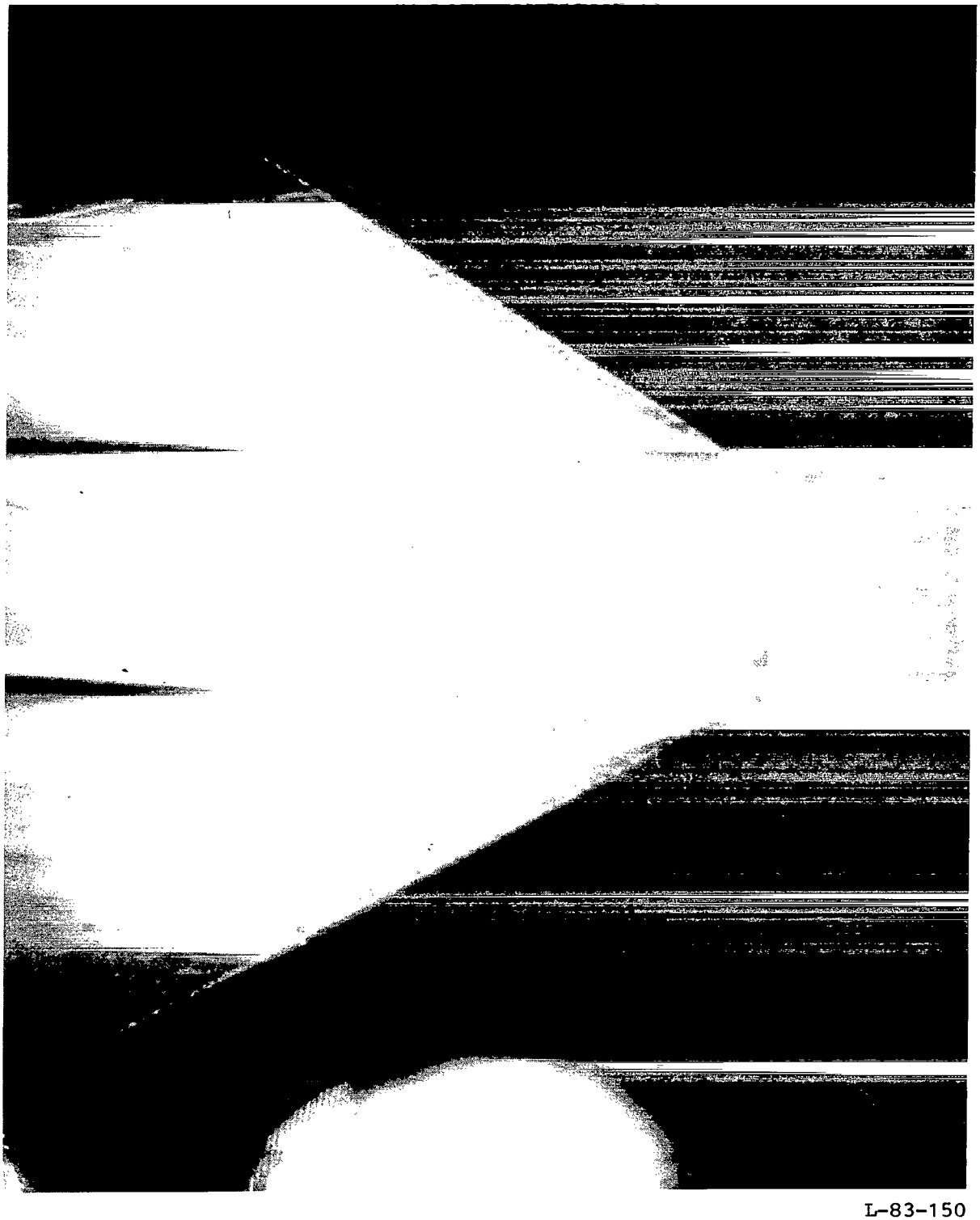
(a) Cambered wing-body model.

Figure 23.- Comparison of data for linear theory and experimental lift and pitching moment for canard on and canard off at M = 1.62.



(b) Flat wing-body model.

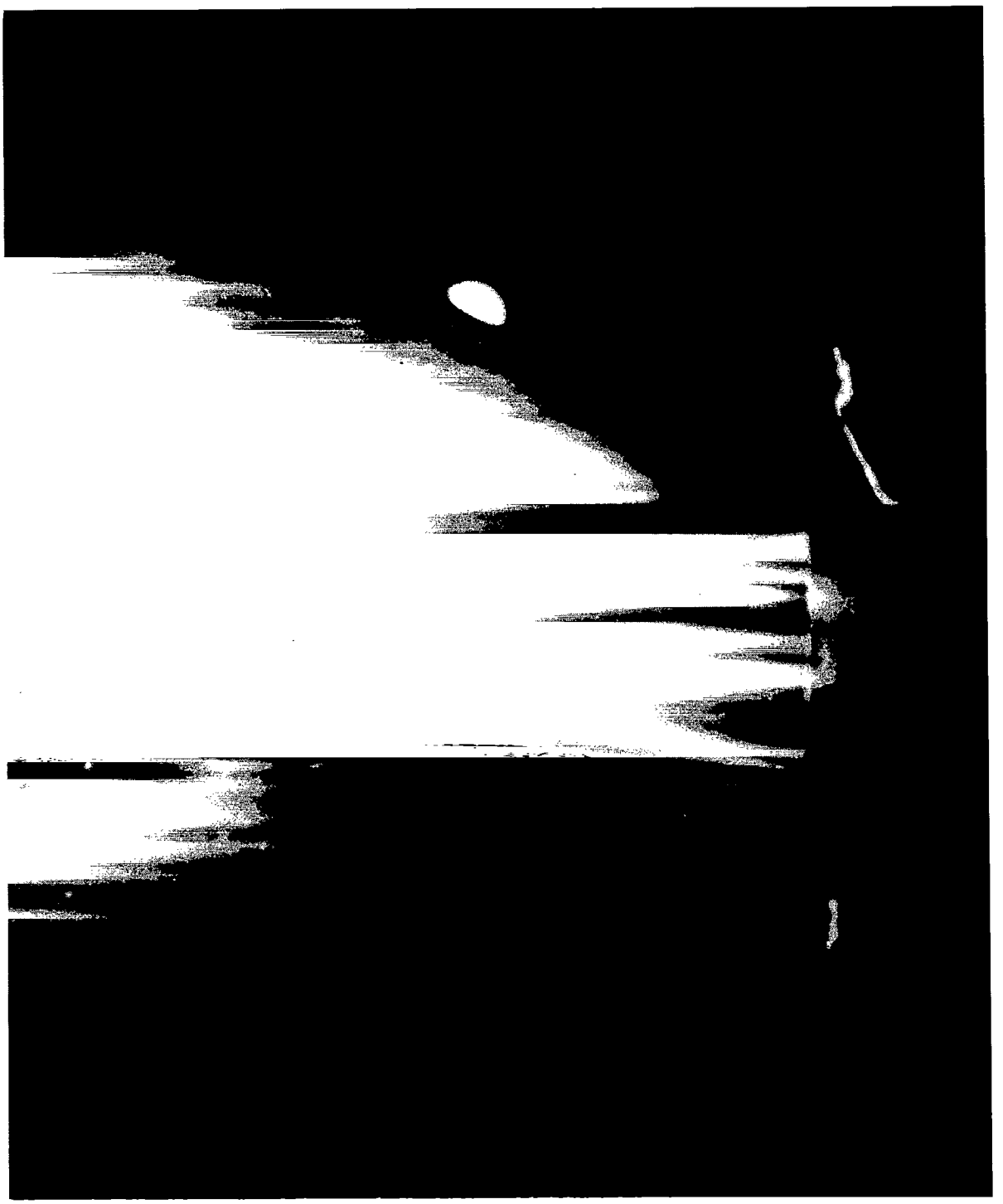
Figure 23.- Concluded.



L-83-150

(a) Cambered wing-body model (nose 1). $\alpha \approx 10°$.

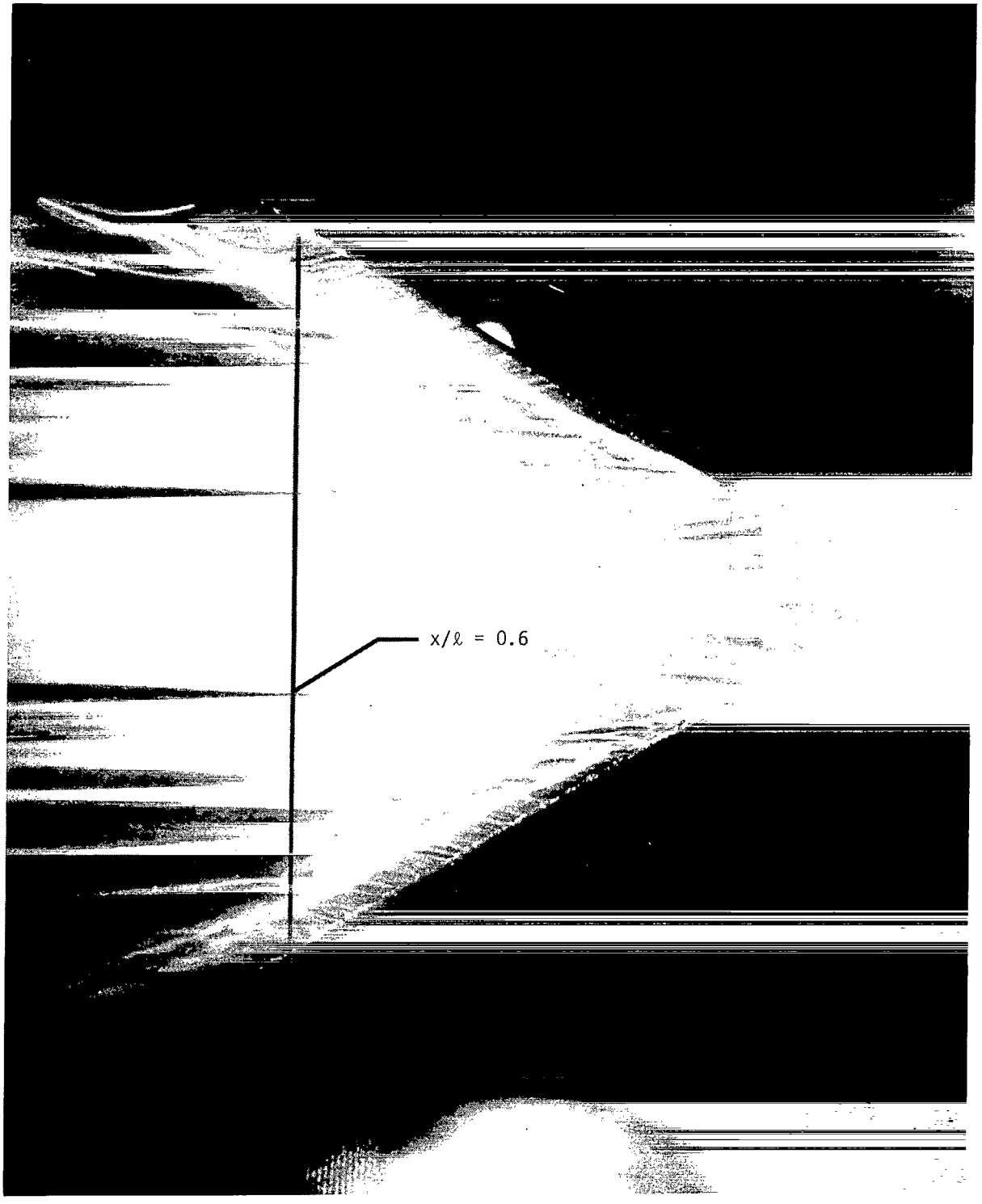
Figure 24.- Photographs of oil flow on upper surface.



L-83-151

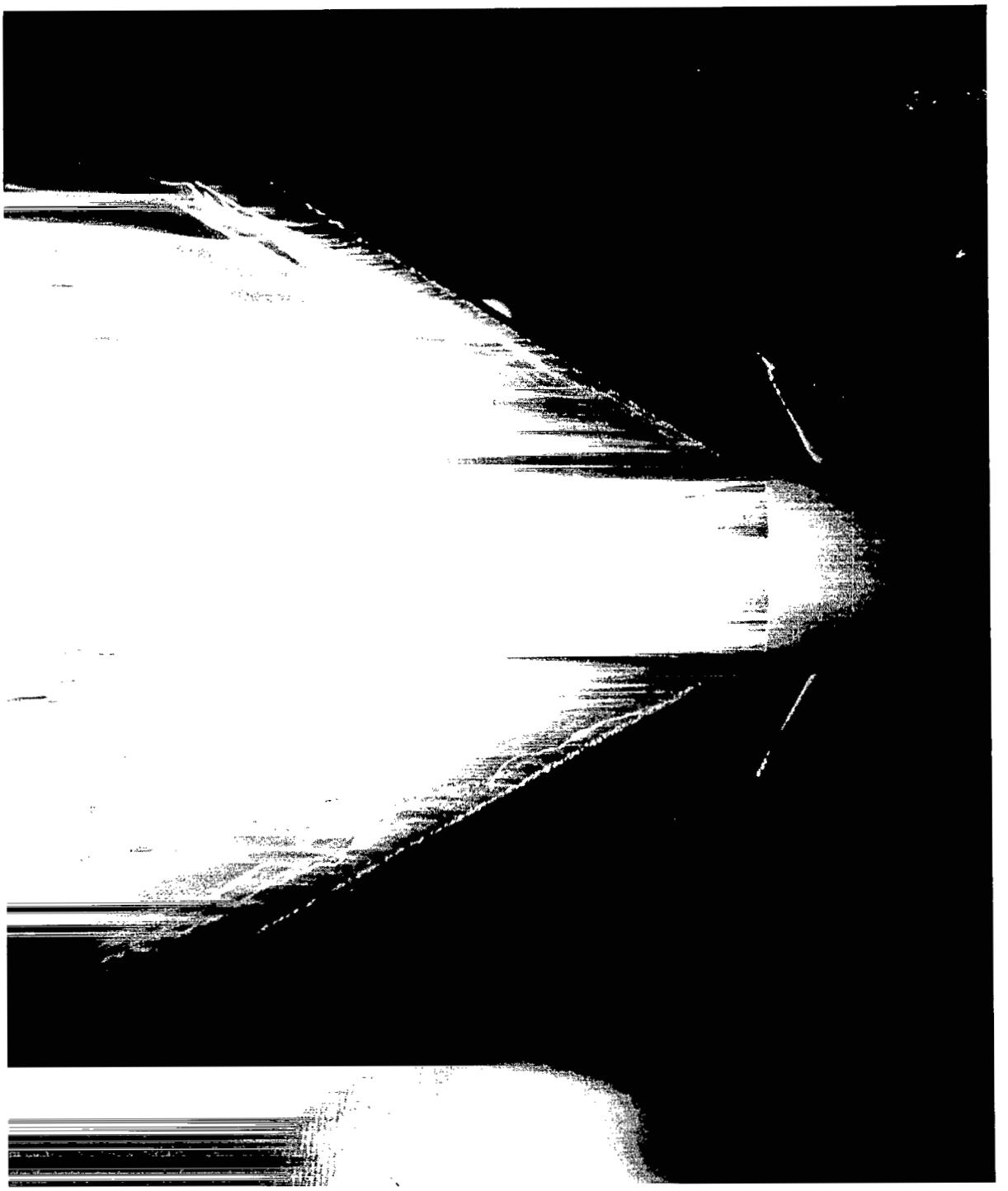
(b) Cambered wing-body-canard model (nose 1). $\delta_c = 0°$; $\alpha \approx 10°$.

Figure 24.- Continued.



(c) Flat wing-body model (nose 1). $\alpha \approx 6°$.

Figure 24.- Continued.



L-83-153

(d) Flat wing-body-canard model (nose 1). $\delta_c = 0°$; $\alpha \approx 6°$.

Figure 24.- Concluded.

APPENDIX A

PRESSURE DATA

Pressure data for the configurations tested are given in this appendix. The pressure coefficients for each angle of attack are presented at constant longitudinal stations as a function of the spanwise-location parameter (η = 1.000 is the leading edge) and also along rays for constant η. Data are presented for the cambered wing in points 15 to 194 and for the flat wing in points 252 to 345. Pressure data were not taken at points 111, 113, and 189 for the cambered wing, or at points 249, 250, 258 to 262, and 280 for the flat wing. Repeat data were taken of several points.

Note that the reference conditions for point 279 were apparently in error, and they have been adjusted to the average values during the particular angle of attack cut. Both the original and adjusted values are contained in this table. The adjusted values were used for plotting.

TABLE AI.- CAMBERED WING-BODY CONFIGURATION

(a) With nose 2

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
1	15	1.62	8.100	0.0	463.1	1103.7	252.1	2.034

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1579
10.80	3.7873	0.540	-0.1606	
10.80	4.3484	0.620	-0.1710	
10.80	4.7692	0.680	-0.1746	
10.80	4.9095	0.700		0.1641
10.80	5.0498	0.720	-0.1691	
10.80	6.0317	0.860	-0.1830	
10.80	6.4876	0.925	-0.1835	0.1224
10.80	6.8032	0.970	-0.1531	
10.80	6.9084	0.985	-0.0553	0.1714
10.80	7.0136	1.000	0.3139	
13.20	3.4289	0.400	-0.0983	0.1785
13.20	3.9432	0.460	-0.1225	
13.20	4.6290	0.540	-0.1438	0.1921
13.20	4.9719	0.580	-0.1592	
13.20	5.3148	0.620	-0.1631	0.1922
13.20	5.6576	0.660	-0.1607	
13.20	5.8291	0.680	-0.1571	
13.20	6.0005	0.700	-0.1553	0.1738
13.20	6.1720	0.720	-0.1483	
13.20	6.3434	0.740	-0.1500	
13.20	6.6863	0.780	-0.1720	0.1619
13.20	7.0292	0.820	-0.1715	
13.20	7.3721	0.860	-0.1680	0.1243
13.20	7.7150	0.900	-0.1654	0.1274
13.20	7.9293	0.925	-0.1529	0.1339
13.20	8.1436	0.950	-0.1527	0.1292
13.20	8.3150	0.970	-0.1259	0.1579
13.20	8.4436	0.985	-0.0576	0.1852
13.20	8.5293	0.995	0.0751	0.3875
13.20	8.5722	1.000	0.3815	0.4201
15.00	5.2602	0.540	-0.1360	
15.00	6.0395	0.620	-0.1567	
15.00	7.0136	0.720	-0.1540	
15.00	8.3774	0.860	-0.1540	
15.00	9.7411	1.000	0.3253	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.3893
2	-0.3052
3	-0.2954
4	-0.2469

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.3486	
17.40	6.1018	0.540	-0.1264	0.1592
17.40	7.0058	0.620	-0.1507	0.1582
17.40	8.1358	0.720	-0.1367	0.1407
17.40	9.7177	0.860	-0.1328	0.0909
17.40	11.2997	1.000	0.3633	
19.80	6.9435	0.540	-0.1278	0.1415
19.80	7.9721	0.620	-0.1454	0.1395
19.80	9.2580	0.720	-0.1411	0.1197
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1606	
0.54	4.6290	13.200	-0.1438	0.1921
0.54	5.2602	15.000	-0.1360	
0.54	6.1018	17.400	-0.1264	0.1592
0.54	6.9435	19.800	-0.1278	0.1415
0.62	4.3484	10.800	-0.1710	
0.62	5.3148	13.200	-0.1631	0.1922
0.62	6.0395	15.000	-0.1567	
0.62	7.0058	17.400	-0.1507	0.1582
0.62	7.9721	19.800	-0.1454	0.1197
0.72	5.0498	10.800	-0.1691	
0.72	6.1720	13.200	-0.1483	
0.72	7.0136	15.000	-0.1540	
0.72	8.1358	17.400	-0.1367	0.1407
0.72	9.2580	19.800	-0.1411	0.1197
0.86	6.0317	10.800	-0.1830	
0.86	7.3721	13.200	-0.1680	0.1243
0.86	8.3774	15.000	-0.1540	
0.86	9.7177	17.400	-0.1328	0.0909
1.00	7.0136	10.800	0.3139	
1.00	8.5722	13.200	0.3815	0.4201
1.00	9.7411	15.000	0.3253	
1.00	10.5204	16.200	0.3486	
1.00	11.2997	17.400	0.3633	
ETA	Y	X	CP-UP	CP-LOW

TABLE AI.- Continued

(a) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	HO(PSF)	P(PSF)	RE/FT(X10-6)
1	16	1.62	9.000	0.0	458.7	1093.4	249.7	2.015

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1753
10.80	3.7873	0.540	-0.1832	
10.80	4.3484	0.620	-0.1970	
10.80	4.7692	0.680	-0.1956	
10.80	4.9095	0.700		0.1836
10.80	5.0498	0.720	-0.1975	
10.80	6.0317	0.860	-0.2119	
10.80	6.4876	0.925	-0.2103	0.1613
10.80	6.8032	0.970	-0.1678	
10.80	6.9084	0.985	-0.0887	0.2408
10.80	7.0136	1.000	0.2940	
13.20	3.4289	0.400	-0.1160	0.1882
13.20	3.9432	0.460	-0.1355	
13.20	4.6290	0.540	-0.1698	0.2002
13.20	4.9719	0.580	-0.1874	
13.20	5.3148	0.620	-0.1923	0.2023
13.20	5.6576	0.660	-0.1892	
13.20	5.8291	0.680	-0.1869	
13.20	6.0005	0.700	-0.1856	0.1875
13.20	6.1720	0.720	-0.1937	
13.20	6.3434	0.740	-0.2001	
13.20	6.6863	0.780	-0.2136	0.1753
13.20	7.0292	0.820	-0.2048	
13.20	7.3721	0.860	-0.1977	0.1447
13.20	7.7150	0.900	-0.1934	0.1537
13.20	7.9293	0.925	-0.1908	0.1599
13.20	8.1436	0.950	-0.1747	0.1745
13.20	8.3150	0.970	-0.1472	0.2009
13.20	8.4436	0.985	-0.1069	0.2400
13.20	8.5293	0.995	0.0308	0.4223
13.20	8.5722	1.000	0.3663	0.4083
15.00	5.2602	0.540	-0.1599	
15.00	6.0395	0.620	-0.1858	
15.00	7.0136	0.720	-0.1977	
15.00	8.3774	0.860	-0.1856	
15.00	9.7411	1.000	0.2957	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4072
2	-0.2946
3	-0.2993
4	-0.2499

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.3151	
17.40	6.1018	0.540	-0.1374	0.1708
17.40	7.0058	0.620	-0.1789	0.1707
17.40	8.1358	0.720	-0.1821	0.1527
17.40	9.7177	0.860	-0.1682	0.1097
17.40	11.2997	1.000	0.3327	
19.80	6.9435	0.540	-0.1368	0.1521
19.80	7.9721	0.620	-0.1748	0.1512
19.80	9.2580	0.720	-0.1823	0.1298
X	Y	ETA	CP-UP	CP-LOW
ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0!1832	
0.54	4.6290	13.200	-0.1698	0.2002
0.54	5.2602	15.000	-0.1599	
0.54	6.1018	17.400	-0.1374	0.1708
0.54	6.9435	19.800	-0.1368	0.1521
0.62	4.3484	10.800	-0.1970	
0.62	5.3148	13.200	-0.1923	0.2023
0.62	6.0395	15.000	-0.1858	
0.62	7.0058	17.400	-0.1789	0.1707
0.62	7.9721	19.800	-0.1748	0.1298
0.72	5.0498	10.800	-0.1975	
0.72	6.1720	13.200	-0.1937	
0.72	7.0136	15.000	-0.1977	
0.72	8.1358	17.400	-0.1821	0.1527
0.72	9.2580	19.800	-0.1823	0.1298
0.86	6.0317	10.800	-0.2119	
0.86	7.3721	13.200	-0.1977	0.1447
0.86	8.3774	15.000	-0.1856	
0.86	9.7177	17.400	-0.1682	0.1097
1.00	7.0136	10.800	0.2940	
1.00	8.5722	13.200	0.3663	0.4083
1.00	9.7411	15.000	0.2957	
1.00	10.5204	16.200	0.3151	
1.00	11.2997	17.400	0.3327	
ETA	Y	X	CP-UP	CP-LOW

TABLE A1.- Continued

(a) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
1	17	1.62	10.000	0.0	455.9	1086.6	248.2	2.003

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1979
10.80	3.7873	0.540	-0.2075	
10.80	4.3484	0.620	-0.2254	
10.80	4.7692	0.680	-0.2268	
10.80	4.9095	0.700		0.2093
10.80	5.0498	0.720	-0.2504	
10.80	6.0317	0.860	-0.2412	
10.80	6.4876	0.925	-0.2348	0.1970
10.80	6.8032	0.970	-0.1944	
10.80	6.9084	0.985	-0.1451	0.2926
10.80	7.0136	1.000	0.2567	
13.20	3.4289	0.400	-0.1295	0.2167
13.20	3.9432	0.460	-0.1573	
13.20	4.6290	0.540	-0.1938	0.2264
13.20	4.9719	0.580	-0.2202	
13.20	5.3148	0.620	-0.2245	0.2272
13.20	5.6576	0.660	-0.2239	
13.20	5.8291	0.680	-0.2267	
13.20	6.0005	0.700	-0.2339	0.2148
13.20	6.1720	0.720	-0.2438	
13.20	6.3434	0.740	-0.2449	
13.20	6.6863	0.780	-0.2407	0.2042
13.20	7.0292	0.820	-0.2311	
13.20	7.3721	0.860	-0.2251	0.1879
13.20	7.7150	0.900	-0.2274	0.1921
13.20	7.9293	0.925	-0.2193	0.2042
13.20	8.1436	0.950	-0.1996	0.2206
13.20	8.3150	0.970	-0.1851	0.2525
13.20	8.4436	0.985	-0.1487	0.3077
13.20	8.5293	0.995	-0.0070	0.4500
13.20	8.5722	1.000	0.3415	0.3991
15.00	5.2602	0.540	-0.1808	
15.00	6.0395	0.620	-0.2157	
15.00	7.0136	0.720	-0.2354	
15.00	8.3774	0.860	-0.2133	
15.00	9.7411	1.000	0.2679	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4123
2	-0.3026
3	-0.3079
4	-0.2530

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2865	
17.40	6.1018	0.540	-0.1569	0.2024
17.40	7.0058	0.620	-0.2133	0.2017
17.40	8.1358	0.720	-0.2157	0.1828
17.40	9.7177	0.860	-0.1975	0.1444
17.40	11.2997	1.000	0.3215	
19.80	6.9435	0.540	-0.1582	0.1819
19.80	7.9721	0.620	-0.2124	0.1796
19.80	9.2580	0.720	-0.2180	0.1601
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.2075	
0.54	4.6290	13.200	-0.1938	0.2264
0.54	5.2602	15.000	-0.1808	
0.54	6.1018	17.400	-0.1569	0.2024
0.54	6.9435	19.800	-0.1582	0.1819
0.62	4.3484	10.800	-0.2254	
0.62	5.3148	13.200	-0.2245	0.2272
0.62	6.0395	15.000	-0.2157	
0.62	7.0058	17.400	-0.2133	0.2017
0.62	7.9721	19.800	-0.2124	0.1601
0.72	5.0498	10.800	-0.2504	
0.72	6.1720	13.200	-0.2438	
0.72	7.0136	15.000	-0.2354	
0.72	8.1358	17.400	-0.2157	0.1828
0.72	9.2580	19.800	-0.2180	0.1601
0.86	6.0317	10.800	-0.2412	
0.86	7.3721	13.200	-0.2251	0.1879
0.86	8.3774	15.000	-0.2133	
0.86	9.7177	17.400	-0.1975	0.1444
1.00	7.0136	10.800	0.2567	
1.00	8.5722	13.200	0.3415	0.3991
1.00	9.7411	15.000	0.2679	
1.00	10.5204	16.200	0.2865	
1.00	11.2997	17.400	0.3215	
ETA	Y	X	CP-UP	CP-LOW

TABLE AI.- Continued

(a) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
2	36	1.62	8.020	0.0	453.7	1081.4	247.0	1.993

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1500
10.80	3.7873	0.540	-0.1605	
10.80	4.3484	0.620	-0.1728	
10.80	4.7692	0.680	-0.1739	
10.80	4.9095	0.700		0.1571
10.80	5.0498	0.720	-0.1662	
10.80	6.0317	0.860	-0.1805	
10.80	6.4876	0.925	-0.1721	0.1089
10.80	6.8032	0.970	-0.1491	
10.80	6.9084	0.985	-0.0492	0.1533
10.80	7.0136	1.000	0.3144	
13.20	3.4289	0.400	-0.1002	0.1691
13.20	3.9432	0.460	-0.1171	
13.20	4.6290	0.540	-0.1479	0.1805
13.20	4.9719	0.580	-0.1621	
13.20	5.3148	0.620	-0.1764	0.1819
13.20	5.6576	0.660	-0.1730	
13.20	5.8291	0.680	-0.1549	
13.20	6.0005	0.700	-0.1556	0.1646
13.20	6.1720	0.720	-0.1361	
13.20	6.3434	0.740	-0.1494	
13.20	6.6863	0.780	-0.1560	0.1505
13.20	7.0292	0.820	-0.1742	
13.20	7.3721	0.860	-0.1658	0.1183
13.20	7.7150	0.900	-0.1606	0.1211
13.20	7.9293	0.925	-0.1560	0.1160
13.20	8.1436	0.950	-0.1521	0.1229
13.20	8.3150	0.970	-0.1320	0.1386
13.20	8.4436	0.985	-0.0480	0.1711
13.20	8.5293	0.995	0.0707	0.3751
13.20	8.5722	1.000	0.3816	0.4135
15.00	5.2602	0.540	-0.1359	
15.00	6.0395	0.620	-0.1541	
15.00	7.0136	0.720	-0.1488	
15.00	8.3774	0.860	-0.1545	
15.00	9.7411	1.000	0.3223	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.3814
2	-0.3127
3	-0.2972
4	-0.2469

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.3458	
17.40	6.1018	0.540	-0.1265	0.1525
17.40	7.0058	0.620	-0.1453	0.1479
17.40	8.1358	0.720	-0.1359	0.1300
17.40	9.7177	0.860	-0.1294	0.0834
17.40	11.2997	1.000	0.3639	
19.80	6.9435	0.540	-0.1204	0.1360
19.80	7.9721	0.620	-0.1416	0.1338
19.80	9.2580	0.720	-0.1386	0.1118
X	Y	ETA	CP-UP	CP-LOW
ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1605	
0.54	4.6290	13.200	-0.1479	0.1805
0.54	5.2602	15.000	-0.1359	
0.54	6.1018	17.400	-0.1265	0.1525
0.54	6.9435	19.800	-0.1204	0.1360
0.62	4.3484	10.800	-0.1728	
0.62	5.3148	13.200	-0.1764	0.1819
0.62	6.0395	15.000	-0.1541	
0.62	7.0058	17.400	-0.1453	0.1479
0.62	7.9721	19.800	-0.1416	0.1118
0.72	5.0498	10.800	-0.1662	
0.72	6.1720	13.200	-0.1361	
0.72	7.0136	15.000	-0.1488	
0.72	8.1358	17.400	-0.1359	0.1300
0.72	9.2580	19.800	-0.1386	0.1118
0.86	6.0317	10.800	-0.1805	
0.86	7.3721	13.200	-0.1658	0.1183
0.86	8.3774	15.000	-0.1545	
0.86	9.7177	17.400	-0.1294	0.0834
1.00	7.0136	10.800	0.3144	
1.00	8.5722	13.200	0.3816	0.4135
1.00	9.7411	15.000	0.3223	
1.00	10.5204	16.200	0.3458	
1.00	11.2997	17.400	0.3639	
ETA	Y	X	CP-UP	CP-LOW

TABLE AI.- Continued

(a) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
2	37	1.62	8.020	0.0	453.7	1081.4	247.0	1.993

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1492
10.80	3.7873	0.540	-0.1609	
10.80	4.3484	0.620	-0.1762	
10.80	4.7692	0.680	-0.1726	
10.80	4.9095	0.700		0.1587
10.80	5.0498	0.720	-0.1659	
10.80	6.0317	0.860	-0.1790	
10.80	6.4876	0.925	-0.1720	0.1076
10.80	6.8032	0.970	-0.1516	
10.80	6.9084	0.985	-0.0635	0.1555
10.80	7.0136	1.000	0.3182	
13.20	3.4289	0.400	-0.1008	0.1680
13.20	3.9432	0.460	-0.1256	
13.20	4.6290	0.540	-0.1448	0.1828
13.20	4.9719	0.580	-0.1585	
13.20	5.3148	0.620	-0.1596	0.1795
13.20	5.6576	0.660	-0.1581	
13.20	5.8291	0.680	-0.1576	
13.20	6.0005	0.700	-0.1564	0.1650
13.20	6.1720	0.720	-0.1606	
13.20	6.3434	0.740	-0.1699	
13.20	6.6863	0.780	-0.1608	0.1500
13.20	7.0292	0.820	-0.1708	
13.20	7.3721	0.860	-0.1662	0.1164
13.20	7.7150	0.900	-0.1558	0.1177
13.20	7.9293	0.925	-0.1534	0.1198
13.20	8.1436	0.950	-0.1454	0.1260
13.20	8.3150	0.970	-0.1239	0.1386
13.20	8.4436	0.985	-0.0521	0.1708
13.20	8.5293	0.995	0.0754	0.3757
13.20	8.5722	1.000	0.3821	0.4112
15.00	5.2602	0.540	-0.1368	
15.00	6.0395	0.620	-0.1570	
15.00	7.0136	0.720	-0.1482	
15.00	8.3774	0.860	-0.1482	
15.00	9.7411	1.000	0.3270	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.3837
2	-0.3106
3	-0.2972
4	-0.2474

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.3449	
17.40	6.1018	0.540	-0.1277	0.1522
17.40	7.0058	0.620	-0.1546	0.1498
17.40	8.1358	0.720	-0.1399	0.1318
17.40	9.7177	0.860	-0.1297	0.0817
17.40	11.2997	1.000	0.3595	
19.80	6.9435	0.540	-0.1337	0.1354
19.80	7.9721	0.620	-0.1443	0.1343
19.80	9.2580	0.720	-0.1408	0.1112
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1609	
0.54	4.6290	13.200	-0.1448	0.1828
0.54	5.2602	15.000	-0.1368	
0.54	6.1018	17.400	-0.1277	0.1522
0.54	6.9435	19.800	-0.1337	0.1354
0.62	4.3484	10.800	-0.1762	
0.62	5.3148	13.200	-0.1596	0.1795
0.62	6.0395	15.000	-0.1570	
0.62	7.0058	17.400	-0.1546	0.1498
0.62	7.9721	19.800	-0.1443	0.1112
0.72	5.0498	10.800	-0.1659	
0.72	6.1720	13.200	-0.1606	
0.72	7.0136	15.000	-0.1482	
0.72	8.1358	17.400	-0.1399	0.1318
0.72	9.2580	19.800	-0.1408	0.1112
0.86	6.0317	10.800	-0.1790	
0.86	7.3721	13.200	-0.1662	0.1164
0.86	8.3774	15.000	-0.1482	
0.86	9.7177	17.400	-0.1297	0.0817
1.00	7.0136	10.800	0.3182	
1.00	8.5722	13.200	0.3821	0.4112
1.00	9.7411	15.000	0.3270	
1.00	10.5204	16.200	0.3449	
1.00	11.2997	17.400	0.3595	
ETA	Y	X	CP-UP	CP-LOW

TABLE AI.- Continued

(a) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
2	38	1.62	9.000	0.0	453.2	1080.1	246.7	1.991

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1719
10.80	3.7873	0.540	-0.1833	
10.80	4.3484	0.620	-0.1987	
10.80	4.7692	0.680	-0.1972	
10.80	4.9095	0.700		0.1808
10.80	5.0498	0.720	-0.1871	
10.80	6.0317	0.860	-0.2120	
10.80	6.4876	0.925	-0.2104	0.1533
10.80	6.8032	0.970	-0.1682	
10.80	6.9084	0.985	-0.0851	0.2176
10.80	7.0136	1.000	0.2934	
13.20	3.4289	0.400	-0.1142	0.1919
13.20	3.9432	0.460	-0.1389	
13.20	4.6290	0.540	-0.1688	0.2055
13.20	4.9719	0.580	-0.1852	
13.20	5.3148	0.620	-0.1971	0.2062
13.20	5.6576	0.660	-0.1826	
13.20	5.8291	0.680	-0.1981	
13.20	6.0005	0.700	-0.1856	0.1874
13.20	6.1720	0.720	-0.1870	
13.20	6.3434	0.740	-0.1925	
13.20	6.6863	0.780	-0.2049	0.1763
13.20	7.0292	0.820	-0.1983	
13.20	7.3721	0.860	-0.1989	0.1500
13.20	7.7150	0.900	-0.1902	0.1558
13.20	7.9293	0.925	-0.1870	0.1592
13.20	8.1436	0.950	-0.1804	0.1774
13.20	8.3150	0.970	-0.1481	0.1965
13.20	8.4436	0.985	-0.0982	0.2456
13.20	8.5293	0.995	0.0388	0.4157
13.20	8.5722	1.000	0.3685	0.4082
15.00	5.2602	0.540	-0.1580	
15.00	6.0395	0.620	-0.1856	
15.00	7.0136	0.720	-0.1938	
15.00	8.3774	0.860	-0.1863	
15.00	9.7411	1.000	0.3010	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4059
2	-0.2924
3	-0.3007
4	-0.2485

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.3207	
17.40	6.1018	0.540	-0.1435	0.1778
17.40	7.0058	0.620	-0.1788	0.1738
17.40	8.1358	0.720	-0.1811	0.1553
17.40	9.7177	0.860	-0.1632	0.1140
17.40	11.2997	1.000	0.3385	
19.80	6.9435	0.540	-0.1427	0.1604
19.80	7.9721	0.620	-0.1782	0.1602
19.80	9.2580	0.720	-0.1781	0.1369
X	Y	ETA	CP-UP	CP-LOW
ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1833	
0.54	4.6290	13.200	-0.1688	0.2055
0.54	5.2602	15.000	-0.1580	
0.54	6.1018	17.400	-0.1435	0.1778
0.54	6.9435	19.800	-0.1427	0.1604
0.62	4.3484	10.800	-0.1987	
0.62	5.3148	13.200	-0.1971	0.2062
0.62	6.0395	15.000	-0.1856	
0.62	7.0058	17.400	-0.1788	0.1738
0.62	7.9721	19.800	-0.1782	0.1369
0.72	5.0498	10.800	-0.1871	
0.72	6.1720	13.200	-0.1870	
0.72	7.0136	15.000	-0.1938	
0.72	8.1358	17.400	-0.1811	0.1553
0.72	9.2580	19.800	-0.1781	0.1369
0.86	6.0317	10.800	-0.2120	
0.86	7.3721	13.200	-0.1989	0.1500
0.86	8.3774	15.000	-0.1863	
0.86	9.7177	17.400	-0.1632	0.1140
1.00	7.0136	10.800	0.2934	
1.00	8.5722	13.200	0.3685	0.4082
1.00	9.7411	15.000	0.3010	
1.00	10.5204	16.200	0.3207	
1.00	11.2997	17.400	0.3385	
ETA	Y	X	CP-UP	CP-LOW

TABLE AI.- Continued

(a) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
2	39	1.62	10.020	0.0	453.3	1080.3	246.7	1.991

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1962
10.80	3.7873	0.540	-0.2075	
10.80	4.3484	0.620	-0.2316	
10.80	4.7692	0.680	-0.2268	
10.80	4.9095	0.700		0.2071
10.80	5.0498	0.720	-0.2416	
10.80	6.0317	0.860	-0.2396	
10.80	6.4876	0.925	-0.2321	0.1921
10.80	6.8032	0.970	-0.1911	
10.80	6.9084	0.985	-0.1460	0.2863
10.80	7.0136	1.000	0.2686	
13.20	3.4289	0.400	-0.1273	0.2175
13.20	3.9432	0.460	-0.1544	
13.20	4.6290	0.540	-0.1944	0.2266
13.20	4.9719	0.580	-0.2216	
13.20	5.3148	0.620	-0.2204	0.2248
13.20	5.6576	0.660	-0.2282	
13.20	5.8291	0.680	-0.2272	
13.20	6.0005	0.700	-0.2352	0.2157
13.20	6.1720	0.720	-0.2351	
13.20	6.3434	0.740	-0.2257	
13.20	6.6863	0.780	-0.2344	0.2053
13.20	7.0292	0.820	-0.2275	
13.20	7.3721	0.860	-0.2245	0.1836
13.20	7.7150	0.900	-0.2248	0.1926
13.20	7.9293	0.925	-0.2121	0.2008
13.20	8.1436	0.950	-0.1957	0.2224
13.20	8.3150	0.970	-0.1857	0.2520
13.20	8.4436	0.985	-0.1429	0.3062
13.20	8.5293	0.995	-0.0059	0.4523
13.20	8.5722	1.000	0.3512	0.3968
15.00	5.2602	0.540	-0.1776	
15.00	6.0395	0.620	-0.2144	
15.00	7.0136	0.720	-0.2306	
15.00	8.3774	0.860	-0.2119	
15.00	9.7411	1.000	0.2787	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4114
2	-0.3186
3	-0.3088
4	-0.2513

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.3014	
17.40	6.1018	0.540	-0.1631	0.2002
17.40	7.0058	0.620	-0.2122	0.1972
17.40	8.1358	0.720	-0.2079	0.1809
17.40	9.7177	0.860	-0.1930	0.1475
17.40	11.2997	1.000	0.3268	
19.80	6.9435	0.540	-0.1613	0.1834
19.80	7.9721	0.620	-0.2193	0.1799
19.80	9.2580	0.720	-0.2159	0.1585
X	Y	ETA	CP-UP	CP-LOW
ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.2075	
0.54	4.6290	13.200	-0.1944	0.2266
0.54	5.2602	15.000	-0.1776	
0.54	6.1018	17.400	-0.1631	0.2002
0.54	6.9435	19.800	-0.1613	0.1834
0.62	4.3484	10.800	-0.2316	
0.62	5.3148	13.200	-0.2204	0.2248
0.62	6.0395	15.000	-0.2144	
0.62	7.0058	17.400	-0.2122	0.1972
0.62	7.9721	19.800	-0.2193	0.1585
0.72	5.0498	10.800	-0.2416	
0.72	6.1720	13.200	-0.2351	
0.72	7.0136	15.000	-0.2306	
0.72	8.1358	17.400	-0.2079	0.1809
0.72	9.2580	19.800	-0.2159	0.1585
0.86	6.0317	10.800	-0.2396	
0.86	7.3721	13.200	-0.2245	0.1836
0.86	8.3774	15.000	-0.2119	
0.86	9.7177	17.400	-0.1930	0.1475
1.00	7.0136	10.800	0.2686	
1.00	8.5722	13.200	0.3512	0.3968
1.00	9.7411	15.000	0.2787	
1.00	10.5204	16.200	0.3014	
1.00	11.2997	17.400	0.3268	
ETA	Y	X	CP-UP	CP-LOW

TABLE AI.- Continued

(a) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
2	40	1.62	11.010	0.0	454.3	1082.8	247.3	1.996

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.2184
10.80	3.7873	0.540	-0.2380	
10.80	4.3484	0.620	-0.2878	
10.80	4.7692	0.680	-0.2706	
10.80	4.9095	0.700		0.2324
10.80	5.0498	0.720	-0.2881	
10.80	6.0317	0.860	-0.2666	
10.80	6.4876	0.925	-0.2623	0.2314
10.80	6.8032	0.970	-0.2241	
10.80	6.9084	0.985	-0.1892	0.3377
10.80	7.0136	1.000	0.2222	
13.20	3.4289	0.400	-0.1446	0.2407
13.20	3.9432	0.460	-0.1756	
13.20	4.6290	0.540	-0.2309	0.2517
13.20	4.9719	0.580	-0.2511	
13.20	5.3148	0.620	-0.2539	0.2522
13.20	5.6576	0.660	-0.2747	
13.20	5.8291	0.680	-0.2746	
13.20	6.0005	0.700	-0.2679	0.2434
13.20	6.1720	0.720	-0.2648	
13.20	6.3434	0.740	-0.2660	
13.20	6.6863	0.780	-0.2598	0.2303
13.20	7.0292	0.820	-0.2526	
13.20	7.3721	0.860	-0.2550	0.2179
13.20	7.7150	0.900	-0.2476	0.2306
13.20	7.9293	0.925	-0.2405	0.2418
13.20	8.1436	0.950	-0.2325	0.2731
13.20	8.3150	0.970	-0.2281	0.2923
13.20	8.4436	0.985	-0.1886	0.3551
13.20	8.5293	0.995	-0.0466	0.4795
13.20	8.5722	1.000	0.3130	0.3840
15.00	5.2602	0.540	-0.2110	
15.00	6.0395	0.620	-0.2665	
15.00	7.0136	0.720	-0.2578	
15.00	8.3774	0.860	-0.2379	
15.00	9.7411	1.000	0.2348	

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2674	
17.40	6.1018	0.540	-0.1832	0.2262
17.40	7.0058	0.620	-0.2697	0.2229
17.40	8.1358	0.720	-0.2342	0.2106
17.40	9.7177	0.860	-0.2172	0.1812
17.40	11.2997	1.000	0.2978	
19.80	6.9435	0.540	-0.1829	0.2092
19.80	7.9721	0.620	-0.2766	0.2066
19.80	9.2580	0.720	-0.2409	0.1863

BASE PRESSURES

PORT	CP
1	-0.4081
2	-0.3084
3	-0.3263
4	-0.2530

X	Y	ETA	CP-UP	CP-LOW
ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.2380	
0.54	4.6290	13.200	-0.2309	0.2517
0.54	5.2602	15.000	-0.2110	
0.54	6.1018	17.400	-0.1832	0.2262
0.54	6.9435	19.800	-0.1829	0.2092
0.62	4.3484	10.800	-0.2878	
0.62	5.3148	13.200	-0.2539	0.2522
0.62	6.0395	15.000	-0.2665	
0.62	7.0058	17.400	-0.2697	0.2229
0.62	7.9721	19.800	-0.2766	0.1863
0.72	5.0498	10.800	-0.2881	
0.72	6.1720	13.200	-0.2648	
0.72	7.0136	15.000	-0.2578	
0.72	8.1358	17.400	-0.2342	0.2106
0.72	9.2580	19.800	-0.2409	0.1863
0.86	6.0317	10.800	-0.2666	
0.86	7.3721	13.200	-0.2550	0.2179
0.86	8.3774	15.000	-0.2379	
0.86	9.7177	17.400	-0.2172	0.1812
1.00	7.0136	10.800	0.2222	
1.00	8.5722	13.200	0.3130	0.3840
1.00	9.7411	15.000	0.2348	
1.00	10.5204	16.200	0.2674	
1.00	11.2997	17.400	0.2978	

ETA	Y	X	CP-UP	CP-LOW

TABLE AI.- Continued

(a) Concluded

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
2	41	1.62	11.980	0.0	454.0	1082.2	247.2	1.995

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.2443
10.80	3.7873	0.540	-0.2607	
10.80	4.3484	0.620	-0.3069	
10.80	4.7692	0.680	-0.3140	
10.80	4.9095	0.700		0.2595
10.80	5.0498	0.720	-0.3103	
10.80	6.0317	0.860	-0.2924	
10.80	6.4876	0.925	-0.2845	0.2678
10.80	6.8032	0.970	-0.2551	
10.80	6.9084	0.985	-0.2207	0.3829
10.80	7.0136	1.000	0.1879	
13.20	3.4289	0.400	-0.1567	0.2662
13.20	3.9432	0.460	-0.1900	
13.20	4.6290	0.540	-0.2628	0.2707
13.20	4.9719	0.580	-0.2950	
13.20	5.3148	0.620	-0.2953	0.2742
13.20	5.6576	0.660	-0.3126	
13.20	5.8291	0.680	-0.2998	
13.20	6.0005	0.700	-0.2952	0.2630
13.20	6.1720	0.720	-0.2870	
13.20	6.3434	0.740	-0.2766	
13.20	6.6863	0.780	-0.2768	0.2605
13.20	7.0292	0.820	-0.2787	
13.20	7.3721	0.860	-0.2761	0.2461
13.20	7.7150	0.900	-0.2730	0.2646
13.20	7.9293	0.925	-0.2635	0.2808
13.20	8.1436	0.950	-0.2617	0.3130
13.20	8.3150	0.970	-0.2560	0.3398
13.20	8.4436	0.985	-0.2187	0.4024
13.20	8.5293	0.995	-0.0878	0.4979
13.20	8.5722	1.000	0.2968	0.3670
15.00	5.2602	0.540	-0.2448	
15.00	6.0395	0.620	-0.3078	
15.00	7.0136	0.720	-0.2807	
15.00	8.3774	0.860	-0.2612	
15.00	9.7411	1.000	0.2152	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4047
2	-0.3401
3	-0.3402
4	-0.2546

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2479	
17.40	6.1018	0.540	-0.2130	0.2481
17.40	7.0058	0.620	-0.2981	0.2444
17.40	8.1358	0.720	-0.2582	0.2343
17.40	9.7177	0.860	-0.2419	0.2091
17.40	11.2997	1.000	0.2852	
19.80	6.9435	0.540	-0.2203	0.2306
19.80	7.9721	0.620	-0.2987	0.2292
19.80	9.2580	0.720	-0.2620	0.2080
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.2607	
0.54	4.6290	13.200	-0.2628	0.2707
0.54	5.2602	15.000	-0.2448	
0.54	6.1018	17.400	-0.2130	0.2481
0.54	6.9435	19.800	-0.2203	0.2306
0.62	4.3484	10.800	-0.3069	
0.62	5.3148	13.200	-0.2953	0.2742
0.62	6.0395	15.000	-0.3078	
0.62	7.0058	17.400	-0.2981	0.2444
0.62	7.9721	19.800	-0.2987	0.2080
0.72	5.0498	10.800	-0.3103	
0.72	6.1720	13.200	-0.2870	
0.72	7.0136	15.000	-0.2807	
0.72	8.1358	17.400	-0.2582	0.2343
0.72	9.2580	19.800	-0.2620	0.2080
0.86	6.0317	10.800	-0.2924	
0.86	7.3721	13.200	-0.2761	0.2461
0.86	8.3774	15.000	-0.2612	
0.86	9.7177	17.400	-0.2419	0.2091
1.00	7.0136	10.800	0.1879	
1.00	8.5722	13.200	0.2968	0.3670
1.00	9.7411	15.000	0.2152	
1.00	10.5204	16.200	0.2479	
1.00	11.2997	17.400	0.2852	
ETA	Y	X	CP-UP	CP-LOW

TABLE AI.- Continued

(b) With nose 1

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
3	61	1.62	8.030	0.0	455.4	1085.3	247.9	2.000

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1459
10.80	3.7873	0.540	-0.1663	
10.80	4.3484	0.620	-0.1652	
10.80	4.7692	0.680	-0.1747	
10.80	4.9095	0.700		0.1553
10.80	5.0498	0.720	-0.1646	
10.80	6.0317	0.860	-0.1802	
10.80	6.4876	0.925	-0.1694	0.0972
10.80	6.8032	0.970	-0.1610	
10.80	6.9084	0.985	-0.0411	0.1497
10.80	7.0136	1.000	0.3276	
13.20	3.4289	0.400	-0.1119	0.1648
13.20	3.9432	0.460	-0.1307	
13.20	4.6290	0.540	-0.1547	0.1781
13.20	4.9719	0.580	-0.1657	
13.20	5.3148	0.620	-0.1674	0.1790
13.20	5.6576	0.660	-0.1628	
13.20	5.8291	0.680	-0.1617	
13.20	6.0005	0.700	-0.1504	0.1642
13.20	6.1720	0.720	-0.1467	
13.20	6.3434	0.740	-0.1513	
13.20	6.6863	0.780	-0.1697	0.1436
13.20	7.0292	0.820	-0.1680	
13.20	7.3721	0.860	-0.1603	0.1097
13.20	7.7150	0.900	-0.1542	0.1120
13.20	7.9293	0.925	-0.1472	0.1114
13.20	8.1436	0.950	-0.1474	0.1150
13.20	8.3150	0.970	-0.1206	0.1246
13.20	8.4436	0.985	-0.0448	0.1629
13.20	8.5293	0.995	0.0937	0.3678
13.20	8.5722	1.000	0.3900	0.4175
15.00	5.2602	0.540	-0.1479	
15.00	6.0395	0.620	-0.1627	
15.00	7.0136	0.720	-0.1519	
15.00	8.3774	0.860	-0.1458	
15.00	9.7411	1.000	0.3243	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.3832
2	-0.3205
3	-0.3046
4	-0.2536

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.3466	
17.40	6.1018	0.540	-0.1396	0.1499
17.40	7.0058	0.620	-0.1577	0.1450
17.40	8.1358	0.720	-0.1368	0.1269
17.40	9.7177	0.860	-0.1223	0.0777
17.40	11.2997	1.000	0.3646	
19.80	6.9435	0.540	-0.1315	0.1357
19.80	7.9721	0.620	-0.1559	0.1344
19.80	9.2580	0.720	-0.1407	0.1072
X	Y	ETA	CP-UP	CP-LOW
ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1663	
0.54	4.6290	13.200	-0.1547	0.1781
0.54	5.2602	15.000	-0.1479	
0.54	6.1018	17.400	-0.1396	0.1499
0.54	6.9435	19.800	-0.1315	0.1357
0.62	4.3484	10.800	-0.1652	
0.62	5.3148	13.200	-0.1674	0.1790
0.62	6.0395	15.000	-0.1627	
0.62	7.0058	17.400	-0.1577	0.1450
0.62	7.9721	19.800	-0.1559	0.1072
0.72	5.0498	10.800	-0.1646	
0.72	6.1720	13.200	-0.1467	
0.72	7.0136	15.000	-0.1519	
0.72	8.1358	17.400	-0.1368	0.1269
0.72	9.2580	19.800	-0.1407	0.1072
0.86	6.0317	10.800	-0.1802	
0.86	7.3721	13.200	-0.1603	0.1097
0.86	8.3774	15.000	-0.1458	
0.86	9.7177	17.400	-0.1223	0.0777
1.00	7.0136	10.800	0.3276	
1.00	8.5722	13.200	0.3900	0.4175
1.00	9.7411	15.000	0.3243	
1.00	10.5204	16.200	0.3466	
1.00	11.2997	17.400	0.3646	
ETA	Y	X	CP-UP	CP-LOW

TABLE AI.- Continued

(b) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
3	62	1.62	9.010	0.0	455.3	1085.1	247.8	2.000

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1662
10.80	3.7873	0.540	-0.1894	
10.80	4.3484	0.620	-0.2000	
10.80	4.7692	0.680	-0.1984	
10.80	4.9095	0.700		0.1778
10.80	5.0498	0.720	-0.2007	
10.80	6.0317	0.860	-0.2066	
10.80	6.4876	0.925	-0.2056	0.1330
10.80	6.8032	0.970	-0.1786	
10.80	6.9084	0.985	-0.0748	0.2106
10.80	7.0136	1.000	0.3003	
13.20	3.4289	0.400	-0.1276	0.1879
13.20	3.9432	0.460	-0.1559	
13.20	4.6290	0.540	-0.1770	0.2022
13.20	4.9719	0.580	-0.1918	
13.20	5.3148	0.620	-0.1955	0.2024
13.20	5.6576	0.660	-0.1929	
13.20	5.8291	0.680	-0.1899	
13.20	6.0005	0.700	-0.1946	0.1875
13.20	6.1720	0.720	-0.1931	
13.20	6.3434	0.740	-0.1973	
13.20	6.6863	0.780	-0.2074	0.1734
13.20	7.0292	0.820	-0.1995	
13.20	7.3721	0.860	-0.1936	0.1472
13.20	7.7150	0.900	-0.1847	0.1508
13.20	7.9293	0.925	-0.1820	0.1583
13.20	8.1436	0.950	-0.1737	0.1654
13.20	8.3150	0.970	-0.1472	0.1786
13.20	8.4436	0.985	-0.0874	0.2366
13.20	8.5293	0.995	0.0394	0.4113
13.20	8.5722	1.000	0.3717	0.4124
15.00	5.2602	0.540	-0.1691	
15.00	6.0395	0.620	-0.1899	
15.00	7.0136	0.720	-0.1973	
15.00	8.3774	0.860	-0.1787	
15.00	9.7411	1.000	0.3013	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4040
2	-0.2929
3	-0.3113
4	-0.2574

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.3239	
17.40	6.1018	0.540	-0.1576	0.1726
17.40	7.0058	0.620	-0.1880	0.1700
17.40	8.1358	0.720	-0.1804	0.1516
17.40	9.7177	0.860	-0.1647	0.1093
17.40	11.2997	1.000	0.3424	
19.80	6.9435	0.540	-0.1533	0.1615
19.80	7.9721	0.620	-0.1893	0.1581
19.80	9.2580	0.720	-0.1907	0.1322
X	Y	ETA	CP-UP	CP-LOW
ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1894	
0.54	4.6290	13.200	-0.1770	0.2022
0.54	5.2602	15.000	-0.1691	
0.54	6.1018	17.400	-0.1576	0.1726
0.54	6.9435	19.800	-0.1533	0.1615
0.62	4.3484	10.800	-0.2000	
0.62	5.3148	13.200	-0.1955	0.2024
0.62	6.0395	15.000	-0.1899	
0.62	7.0058	17.400	-0.1880	0.1700
0.62	7.9721	19.800	-0.1893	0.1322
0.72	5.0498	10.800	-0.2007	
0.72	6.1720	13.200	-0.1931	
0.72	7.0136	15.000	-0.1973	
0.72	8.1358	17.400	-0.1804	0.1516
0.72	9.2580	19.800	-0.1907	0.1322
0.86	6.0317	10.800	-0.2066	
0.86	7.3721	13.200	-0.1936	0.1472
0.86	8.3774	15.000	-0.1787	
0.86	9.7177	17.400	-0.1647	0.1093
1.00	7.0136	10.800	0.3003	
1.00	8.5722	13.200	0.3717	0.4124
1.00	9.7411	15.000	0.3013	
1.00	10.5204	16.200	0.3239	
1.00	11.2997	17.400	0.3424	
ETA	Y	X	CP-UP	CP-LOW

TABLE AI.- Continued

(b) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
3	63	1.62	9.990	0.0	455.1	1084.7	247.7	1.999

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1896
10.80	3.7873	0.540	-0.2121	
10.80	4.3484	0.620	-0.2223	
10.80	4.7692	0.680	-0.2299	
10.80	4.9095	0.700		0.2023
10.80	5.0498	0.720	-0.2479	
10.80	6.0317	0.860	-0.2343	
10.80	6.4876	0.925	-0.2292	0.1844
10.80	6.8032	0.970	-0.1965	
10.80	6.9084	0.985	-0.1293	0.2692
10.80	7.0136	1.000	0.2653	
13.20	3.4289	0.400	-0.1395	0.2091
13.20	3.9432	0.460	-0.1665	
13.20	4.6290	0.540	-0.1997	0.2230
13.20	4.9719	0.580	-0.2207	
13.20	5.3148	0.620	-0.2263	0.2244
13.20	5.6576	0.660	-0.2261	
13.20	5.8291	0.680	-0.2325	
13.20	6.0005	0.700	-0.2409	0.2128
13.20	6.1720	0.720	-0.2443	
13.20	6.3434	0.740	-0.2290	
13.20	6.6863	0.780	-0.2377	0.1992
13.20	7.0292	0.820	-0.2276	
13.20	7.3721	0.860	-0.2225	0.1801
13.20	7.7150	0.900	-0.2200	0.1869
13.20	7.9293	0.925	-0.2106	0.1986
13.20	8.1436	0.950	-0.1931	0.2127
13.20	8.3150	0.970	-0.1816	0.2354
13.20	8.4436	0.985	-0.1333	0.2970
13.20	8.5293	0.995	0.0017	0.4527
13.20	8.5722	1.000	0.3497	0.4013
15.00	5.2602	0.540	-0.1928	
15.00	6.0395	0.620	-0.2190	
15.00	7.0136	0.720	-0.2367	
15.00	8.3774	0.860	-0.2082	
15.00	9.7411	1.000	0.2754	

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2978	
17.40	6.1018	0.540	-0.1791	0.1974
17.40	7.0058	0.620	-0.2199	0.1924
17.40	8.1358	0.720	-0.2165	0.1769
17.40	9.7177	0.860	-0.1907	0.1406
17.40	11.2997	1.000	0.3240	
19.80	6.9435	0.540	-0.1667	0.1843
19.80	7.9721	0.620	-0.2205	0.1788
19.80	9.2580	0.720	-0.2175	0.1588

BASE PRESSURES

PORT	CP
1	-0.4131
2	-0.3307
3	-0.3168
4	-0.2584

X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.2121	
0.54	4.6290	13.200	-0.1997	0.2230
0.54	5.2602	15.000	-0.1928	
0.54	6.1018	17.400	-0.1791	0.1974
0.54	6.9435	19.800	-0.1667	0.1843
0.62	4.3484	10.800	-0.2223	
0.62	5.3148	13.200	-0.2263	0.2244
0.62	6.0395	15.000	-0.2190	
0.62	7.0058	17.400	-0.2199	0.1924
0.62	7.9721	19.800	-0.2205	0.1588
0.72	5.0498	10.800	-0.2479	
0.72	6.1720	13.200	-0.2443	
0.72	7.0136	15.000	-0.2367	
0.72	8.1358	17.400	-0.2165	0.1769
0.72	9.2580	19.800	-0.2175	0.1588
0.86	6.0317	10.800	-0.2343	
0.86	7.3721	13.200	-0.2225	0.1801
0.86	8.3774	15.000	-0.2082	
0.86	9.7177	17.400	-0.1907	0.1406
1.00	7.0136	10.800	0.2653	
1.00	8.5722	13.200	0.3497	0.4013
1.00	9.7411	15.000	0.2754	
1.00	10.5204	16.200	0.2978	
1.00	11.2997	17.400	0.3240	

ETA	Y	X	CP-UP	CP-LOW

TABLE AI.- Continued

(b) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
3	64	1.62	11.020	0.0	456.0	1086.8	248.2	2.003

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.2158
10.80	3.7873	0.540	-0.2364	
10.80	4.3484	0.620	-0.2552	
10.80	4.7692	0.680	-0.2759	
10.80	4.9095	0.700		0.2295
10.80	5.0498	0.720	-0.2898	
10.80	6.0317	0.860	-0.2679	
10.80	6.4876	0.925	-0.2556	0.2251
10.80	6.8032	0.970	-0.2249	
10.80	6.9084	0.985	-0.1747	0.3298
10.80	7.0136	1.000	0.2269	
13.20	3.4289	0.400	-0.1559	0.2345
13.20	3.9432	0.460	-0.1709	
13.20	4.6290	0.540	-0.2261	0.2477
13.20	4.9719	0.580	-0.2521	
13.20	5.3148	0.620	-0.2561	0.2499
13.20	5.6576	0.660	-0.2809	
13.20	5.8291	0.680	-0.2790	
13.20	6.0005	0.700	-0.2793	0.2411
13.20	6.1720	0.720	-0.2648	
13.20	6.3434	0.740	-0.2706	
13.20	6.6863	0.780	-0.2612	0.2322
13.20	7.0292	0.820	-0.2530	
13.20	7.3721	0.860	-0.2501	0.2136
13.20	7.7150	0.900	-0.2474	0.2240
13.20	7.9293	0.925	-0.2333	0.2407
13.20	8.1436	0.950	-0.2240	0.2580
13.20	8.3150	0.970	-0.2196	0.2848
13.20	8.4436	0.985	-0.1848	0.3540
13.20	8.5293	0.995	-0.0440	0.4796
13.20	8.5722	1.000	0.3255	0.3888
15.00	5.2602	0.540	-0.2177	
15.00	6.0395	0.620	-0.2659	
15.00	7.0136	0.720	-0.2630	
15.00	8.3774	0.860	-0.2395	
15.00	9.7411	1.000	0.2444	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4087
2	-0.3141
3	-0.3316
4	-0.2587

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2605	
17.40	6.1018	0.540	-0.2002	0.2251
17.40	7.0058	0.620	-0.2713	0.2219
17.40	8.1358	0.720	-0.2429	0.2036
17.40	9.7177	0.860	-0.2177	0.1728
17.40	11.2997	1.000	0.3008	
19.80	6.9435	0.540	-0.1910	0.2086
19.80	7.9721	0.620	-0.2773	0.2059
19.80	9.2580	0.720	-0.2440	0.1858
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.2364	
0.54	4.6290	13.200	-0.2261	0.2477
0.54	5.2602	15.000	-0.2177	
0.54	6.1018	17.400	-0.2002	0.2251
0.54	6.9435	19.800	-0.1910	0.2086
0.62	4.3484	10.800	-0.2552	
0.62	5.3148	13.200	-0.2561	0.2499
0.62	6.0395	15.000	-0.2659	
0.62	7.0058	17.400	-0.2713	0.2219
0.62	7.9721	19.800	-0.2773	0.1858
0.72	5.0498	10.800	-0.2898	
0.72	6.1720	13.200	-0.2648	
0.72	7.0136	15.000	-0.2630	
0.72	8.1358	17.400	-0.2429	0.2036
0.72	9.2580	19.800	-0.2440	0.1858
0.86	6.0317	10.800	-0.2679	
0.86	7.3721	13.200	-0.2501	0.2136
0.86	8.3774	15.000	-0.2395	
0.86	9.7177	17.400	-0.2177	0.1728
1.00	7.0136	10.800	0.2269	
1.00	8.5722	13.200	0.3255	0.3888
1.00	9.7411	15.000	0.2444	
1.00	10.5204	16.200	0.2605	
1.00	11.2997	17.400	0.3008	
ETA	Y	X	CP-UP	CP-LOW

TABLE AI.- Continued

(b) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
4	83	1.62	8.000	0.0	455.6	1085.9	248.0	2.002

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1480
10.80	3.7873	0.540	-0.1629	
10.80	4.3484	0.620	-0.1747	
10.80	4.7692	0.680	-0.1731	
10.80	4.9095	0.700		0.1530
10.80	5.0498	0.720	-0.1664	
10.80	6.0317	0.860	-0.1738	
10.80	6.4876	0.925	-0.1688	0.0980
10.80	6.8032	0.970	-0.1589	
10.80	6.9084	0.985	-0.0406	0.1464
10.80	7.0136	1.000	0.3278	
13.20	3.4289	0.400	-0.1100	0.1664
13.20	3.9432	0.460	-0.1296	
13.20	4.6290	0.540	-0.1493	0.1805
13.20	4.9719	0.580	-0.1597	
13.20	5.3148	0.620	-0.1674	0.1811
13.20	5.6576	0.660	-0.1656	
13.20	5.8291	0.680	-0.1613	
13.20	6.0005	0.700	-0.1563	0.1669
13.20	6.1720	0.720	-0.1559	
13.20	6.3434	0.740	-0.1590	
13.20	6.6863	0.780	-0.1561	0.1446
13.20	7.0292	0.820	-0.1648	
13.20	7.3721	0.860	-0.1545	0.1107
13.20	7.7150	0.900	-0.1561	0.1170
13.20	7.9293	0.925	-0.1473	0.1126
13.20	8.1436	0.950	-0.1460	0.1120
13.20	8.3150	0.970	-0.1231	0.1252
13.20	8.4436	0.985	-0.0394	0.1668
13.20	8.5293	0.995	0.0937	0.3711
13.20	8.5722	1.000	0.3918	0.4176
15.00	5.2602	0.540	-0.1452	
15.00	6.0395	0.620	-0.1592	
15.00	7.0136	0.720	-0.1482	
15.00	8.3774	0.860	-0.1439	
15.00	9.7411	1.000	0.3272	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.3836
2	-0.3162
3	-0.3002
4	-0.2464

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.3510	
17.40	6.1018	0.540	-0.1384	0.1525
17.40	7.0058	0.620	-0.1545	0.1496
17.40	8.1358	0.720	-0.1366	0.1307
17.40	9.7177	0.860	-0.1182	0.0777
17.40	11.2997	1.000	0.3650	
19.80	6.9435	0.540	-0.1341	0.1347
19.80	7.9721	0.620	-0.1507	0.1347
19.80	9.2580	0.720	-0.1391	0.1110
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1629	
0.54	4.6290	13.200	-0.1493	0.1805
0.54	5.2602	15.000	-0.1452	
0.54	6.1018	17.400	-0.1384	0.1525
0.54	6.9435	19.800	-0.1341	0.1347
0.62	4.3484	10.800	-0.1747	
0.62	5.3148	13.200	-0.1674	0.1811
0.62	6.0395	15.000	-0.1592	
0.62	7.0058	17.400	-0.1545	0.1496
0.62	7.9721	19.800	-0.1507	0.1110
0.72	5.0498	10.800	-0.1664	
0.72	6.1720	13.200	-0.1559	
0.72	7.0136	15.000	-0.1482	
0.72	8.1358	17.400	-0.1366	0.1307
0.72	9.2580	19.800	-0.1391	0.1110
0.86	6.0317	10.800	-0.1738	
0.86	7.3721	13.200	-0.1545	0.1107
0.86	8.3774	15.000	-0.1439	
0.86	9.7177	17.400	-0.1182	0.0777
1.00	7.0136	10.800	0.3278	
1.00	8.5722	13.200	0.3918	0.4176
1.00	9.7411	15.000	0.3272	
1.00	10.5204	16.200	0.3510	
1.00	11.2997	17.400	0.3650	
ETA	Y	X	CP-UP	CP-LOW

TABLE AI.- Continued

(b) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
4	84	1.62	8.980	0.0	455.6	1086.0	248.0	2.002

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1665
10.80	3.7873	0.540	-0.1857	
10.80	4.3484	0.620	-0.2006	
10.80	4.7692	0.680	-0.1980	
10.80	4.9095	0.700		0.1744
10.80	5.0498	0.720	-0.1959	
10.80	6.0317	0.860	-0.2092	
10.80	6.4876	0.925	-0.2033	0.1429
10.80	6.8032	0.970	-0.1767	
10.80	6.9084	0.985	-0.0775	0.2090
10.80	7.0136	1.000	0.2948	
13.20	3.4289	0.400	-0.1248	0.1837
13.20	3.9432	0.460	-0.1475	
13.20	4.6290	0.540	-0.1748	0.2019
13.20	4.9719	0.580	-0.1894	
13.20	5.3148	0.620	-0.1914	0.2014
13.20	5.6576	0.660	-0.1887	
13.20	5.8291	0.680	-0.1925	
13.20	6.0005	0.700	-0.1892	0.1884
13.20	6.1720	0.720	-0.1900	
13.20	6.3434	0.740	-0.2107	
13.20	6.6863	0.780	-0.2010	0.1694
13.20	7.0292	0.820	-0.1993	
13.20	7.3721	0.860	-0.1927	0.1445
13.20	7.7150	0.900	-0.1830	0.1491
13.20	7.9293	0.925	-0.1812	0.1554
13.20	8.1436	0.950	-0.1708	0.1649
13.20	8.3150	0.970	-0.1444	0.1849
13.20	8.4436	0.985	-0.0812	0.2309
13.20	8.5293	0.995	0.0411	0.4110
13.20	8.5722	1.000	0.3710	0.4079
15.00	5.2602	0.540	-0.1664	
15.00	6.0395	0.620	-0.1861	
15.00	7.0136	0.720	-0.1906	
15.00	8.3774	0.860	-0.1790	
15.00	9.7411	1.000	0.3017	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4048
2	-0.2916
3	-0.3065
4	-0.2517

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.3230	
17.40	6.1018	0.540	-0.1582	0.1726
17.40	7.0058	0.620	-0.1827	0.1693
17.40	8.1358	0.720	-0.1846	0.1525
17.40	9.7177	0.860	-0.1592	0.1086
17.40	11.2997	1.000	0.3424	
19.80	6.9435	0.540	-0.1529	0.1563
19.80	7.9721	0.620	-0.1817	0.1542
19.80	9.2580	0.720	-0.1823	0.1311
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1857	
0.54	4.6290	13.200	-0.1748	0.2019
0.54	5.2602	15.000	-0.1664	
0.54	6.1018	17.400	-0.1582	0.1726
0.54	6.9435	19.800	-0.1529	0.1563
0.62	4.3484	10.800	-0.2006	
0.62	5.3148	13.200	-0.1914	0.2014
0.62	6.0395	15.000	-0.1861	
0.62	7.0058	17.400	-0.1827	0.1693
0.62	7.9721	19.800	-0.1817	0.1311
0.72	5.0498	10.800	-0.1959	
0.72	6.1720	13.200	-0.1900	
0.72	7.0136	15.000	-0.1906	
0.72	8.1358	17.400	-0.1846	0.1525
0.72	9.2580	19.800	-0.1823	0.1311
0.86	6.0317	10.800	-0.2092	
0.86	7.3721	13.200	-0.1927	0.1445
0.86	8.3774	15.000	-0.1790	
0.86	9.7177	17.400	-0.1592	0.1086
1.00	7.0136	10.800	0.2948	
1.00	8.5722	13.200	0.3710	0.4079
1.00	9.7411	15.000	0.3017	
1.00	10.5204	16.200	0.3230	
1.00	11.2997	17.400	0.3424	
ETA	Y	X	CP-UP	CP-LOW

TABLE AI.- Continued

(b) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	HO(PSF)	P(PSF)	RE/FT(X10-6)
4	85	1.62	9.980	0.0	455.6	1085.9	248.0	2.002

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1916
10.80	3.7873	0.540	-0.2096	
10.80	4.3484	0.620	-0.2092	
10.80	4.7692	0.680	-0.2256	
10.80	4.9095	0.700		0.1985
10.80	5.0498	0.720	-0.2412	
10.80	6.0317	0.860	-0.2365	
10.80	6.4876	0.925	-0.2303	0.1822
10.80	6.8032	0.970	-0.1996	
10.80	6.9084	0.985	-0.1209	0.2650
10.80	7.0136	1.000	0.2667	
13.20	3.4289	0.400	-0.1399	0.2074
13.20	3.9432	0.460	-0.1645	
13.20	4.6290	0.540	-0.2012	0.2232
13.20	4.9719	0.580	-0.2175	
13.20	5.3148	0.620	-0.2228	0.2225
13.20	5.6576	0.660	-0.2178	
13.20	5.8291	0.680	-0.2272	
13.20	6.0005	0.700	-0.2357	0.2130
13.20	6.1720	0.720	-0.2329	
13.20	6.3434	0.740	-0.2311	
13.20	6.6863	0.780	-0.2348	0.1992
13.20	7.0292	0.820	-0.2274	
13.20	7.3721	0.860	-0.2270	0.1772
13.20	7.7150	0.900	-0.2213	0.1862
13.20	7.9293	0.925	-0.2115	0.1981
13.20	8.1436	0.950	-0.1924	0.2131
13.20	8.3150	0.970	-0.1767	0.2361
13.20	8.4436	0.985	-0.1380	0.2987
13.20	8.5293	0.995	-0.0021	0.4484
13.20	8.5722	1.000	0.3518	0.3998
15.00	5.2602	0.540	-0.1882	
15.00	6.0395	0.620	-0.2137	
15.00	7.0136	0.720	-0.2352	
15.00	8.3774	0.860	-0.2104	
15.00	9.7411	1.000	0.2749	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4110
2	-0.3332
3	-0.3121
4	-0.2542

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2984	
17.40	6.1018	0.540	-0.1728	0.1967
17.40	7.0058	0.620	-0.2117	0.1961
17.40	8.1358	0.720	-0.2126	0.1794
17.40	9.7177	0.860	-0.1896	0.1403
17.40	11.2997	1.000	0.3226	
19.80	6.9435	0.540	-0.1657	0.1785
19.80	7.9721	0.620	-0.2138	0.1800
19.80	9.2580	0.720	-0.2151	0.1567
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.2096	
0.54	4.6290	13.200	-0.2012	0.2232
0.54	5.2602	15.000	-0.1882	
0.54	6.1018	17.400	-0.1728	0.1967
0.54	6.9435	19.800	-0.1657	0.1785
0.62	4.3484	10.800	-0.2092	
0.62	5.3148	13.200	-0.2228	0.2225
0.62	6.0395	15.000	-0.2137	
0.62	7.0058	17.400	-0.2117	0.1961
0.62	7.9721	19.800	-0.2138	0.1567
0.72	5.0498	10.800	-0.2412	
0.72	6.1720	13.200	-0.2329	
0.72	7.0136	15.000	-0.2352	
0.72	8.1358	17.400	-0.2126	0.1794
0.72	9.2580	19.800	-0.2151	0.1567
0.86	6.0317	10.800	-0.2365	
0.86	7.3721	13.200	-0.2270	0.1772
0.86	8.3774	15.000	-0.2104	
0.86	9.7177	17.400	-0.1896	0.1403
1.00	7.0136	10.800	0.2667	
1.00	8.5722	13.200	0.3518	0.3998
1.00	9.7411	15.000	0.2749	
1.00	10.5204	16.200	0.2984	
1.00	11.2997	17.400	0.3226	
ETA	Y	X	CP-UP	CP-LOW

TABLE AI.- Continued

(b) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
4	86	1.62	10.960	0.0	454.9	1084.1	247.6	1.998

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.2147
10.80	3.7873	0.540	-0.2324	
10.80	4.3484	0.620	-0.3004	
10.80	4.7692	0.680	-0.2779	
10.80	4.9095	0.700		0.2244
10.80	5.0498	0.720	-0.2885	
10.80	6.0317	0.860	-0.2637	
10.80	6.4876	0.925	-0.2563	0.2166
10.80	6.8032	0.970	-0.2256	
10.80	6.9084	0.985	-0.1568	0.3218
10.80	7.0136	1.000	0.2260	
13.20	3.4289	0.400	-0.1525	0.2330
13.20	3.9432	0.460	-0.1808	
13.20	4.6290	0.540	-0.2203	0.2461
13.20	4.9719	0.580	-0.2489	
13.20	5.3148	0.620	-0.2577	0.2434
13.20	5.6576	0.660	-0.2788	
13.20	5.8291	0.680	-0.2809	
13.20	6.0005	0.700	-0.2714	0.2358
13.20	6.1720	0.720	-0.2670	
13.20	6.3434	0.740	-0.2664	
13.20	6.6863	0.780	-0.2600	0.2244
13.20	7.0292	0.820	-0.2560	
13.20	7.3721	0.860	-0.2493	0.2094
13.20	7.7150	0.900	-0.2475	0.2219
13.20	7.9293	0.925	-0.2361	0.2341
13.20	8.1436	0.950	-0.2214	0.2546
13.20	8.3150	0.970	-0.2232	0.2750
13.20	8.4436	0.985	-0.1880	0.3495
13.20	8.5293	0.995	-0.0432	0.4752
13.20	8.5722	1.000	0.3220	0.3871
15.00	5.2602	0.540	-0.2117	
15.00	6.0395	0.620	-0.2534	
15.00	7.0136	0.720	-0.2598	
15.00	8.3774	0.860	-0.2339	
15.00	9.7411	1.000	0.2484	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4084
2	-0.3095
3	-0.3277
4	-0.2570

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2694	
17.40	6.1018	0.540	-0.1937	0.2214
17.40	7.0058	0.620	-0.2633	0.2200
17.40	8.1358	0.720	-0.2343	0.2052
17.40	9.7177	0.860	-0.2212	0.1723
17.40	11.2997	1.000	0.3039	
19.80	6.9435	0.540	-0.1871	0.2034
19.80	7.9721	0.620	-0.2708	0.2026
19.80	9.2580	0.720	-0.2403	0.1804
X	Y	ETA	CP-UP	CP-LOW
ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.2324	
0.54	4.6290	13.200	-0.2203	0.2461
0.54	5.2602	15.000	-0.2117	
0.54	6.1018	17.400	-0.1937	0.2214
0.54	6.9435	19.800	-0.1871	0.2034
0.62	4.3484	10.800	-0.3004	
0.62	5.3148	13.200	-0.2577	0.2434
0.62	6.0395	15.000	-0.2534	
0.62	7.0058	17.400	-0.2633	0.2200
0.62	7.9721	19.800	-0.2708	0.1804
0.72	5.0498	10.800	-0.2885	
0.72	6.1720	13.200	-0.2670	
0.72	7.0136	15.000	-0.2598	
0.72	8.1358	17.400	-0.2343	0.2052
0.72	9.2580	19.800	-0.2403	0.1804
0.86	6.0317	10.800	-0.2637	
0.86	7.3721	13.200	-0.2493	0.2094
0.86	8.3774	15.000	-0.2339	
0.86	9.7177	17.400	-0.2212	0.1723
1.00	7.0136	10.800	0.2260	
1.00	8.5722	13.200	0.3220	0.3871
1.00	9.7411	15.000	0.2484	
1.00	10.5204	16.200	0.2694	
1.00	11.2997	17.400	0.3039	
ETA	Y	X	CP-UP	CP-LOW

TABLE AI.- Continued

(b) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
4	87	1.62	11.990	0.0	454.9	1084.1	247.6	1.998

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.2413
10.80	3.7873	0.540	-0.2596	
10.80	4.3484	0.620	-0.3129	
10.80	4.7692	0.680	-0.3167	
10.80	4.9095	0.700		0.2542
10.80	5.0498	0.720	-0.3139	
10.80	6.0317	0.860	-0.2915	
10.80	6.4876	0.925	-0.2833	0.2582
10.80	6.8032	0.970	-0.2578	
10.80	6.9084	0.985	-0.1884	0.3781
10.80	7.0136	1.000	0.1907	
13.20	3.4289	0.400	-0.1657	0.2602
13.20	3.9432	0.460	-0.2001	
13.20	4.6290	0.540	-0.2541	0.2719
13.20	4.9719	0.580	-0.2840	
13.20	5.3148	0.620	-0.2737	0.2728
13.20	5.6576	0.660	-0.3090	
13.20	5.8291	0.680	-0.3042	
13.20	6.0005	0.700	-0.2927	0.2619
13.20	6.1720	0.720	-0.2922	
13.20	6.3434	0.740	-0.2850	
13.20	6.6863	0.780	-0.2864	0.2577
13.20	7.0292	0.820	-0.2782	
13.20	7.3721	0.860	-0.2737	0.2439
13.20	7.7150	0.900	-0.2710	0.2621
13.20	7.9293	0.925	-0.2599	0.2769
13.20	8.1436	0.950	-0.2585	0.2994
13.20	8.3150	0.970	-0.2565	0.3277
13.20	8.4436	0.985	-0.2200	0.3998
13.20	8.5293	0.995	-0.0835	0.5009
13.20	8.5722	1.000	0.2968	0.3744
15.00	5.2602	0.540	-0.2399	
15.00	6.0395	0.620	-0.3060	
15.00	7.0136	0.720	-0.2832	
15.00	8.3774	0.860	-0.2633	
15.00	9.7411	1.000	0.2138	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4055
2	-0.3445
3	-0.3427
4	-0.2584

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2456	
17.40	6.1018	0.540	-0.2205	0.2487
17.40	7.0058	0.620	-0.3004	0.2483
17.40	8.1358	0.720	-0.2637	0.2356
17.40	9.7177	0.860	-0.2407	0.2103
17.40	11.2997	1.000	0.2810	
19.80	6.9435	0.540	-0.2157	0.2318
19.80	7.9721	0.620	-0.3004	0.2302
19.80	9.2580	0.720	-0.2636	0.2097
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.2596	
0.54	4.6290	13.200	-0.2541	0.2719
0.54	5.2602	15.000	-0.2399	
0.54	6.1018	17.400	-0.2205	0.2487
0.54	6.9435	19.800	-0.2157	0.2318
0.62	4.3484	10.800	-0.3129	
0.62	5.3148	13.200	-0.2737	0.2728
0.62	6.0395	15.000	-0.3060	
0.62	7.0058	17.400	-0.3004	0.2483
0.62	7.9721	19.800	-0.3004	0.2097
0.72	5.0498	10.800	-0.3139	
0.72	6.1720	13.200	-0.2922	
0.72	7.0136	15.000	-0.2832	
0.72	8.1358	17.400	-0.2637	0.2356
0.72	9.2580	19.800	-0.2636	0.2097
0.86	6.0317	10.800	-0.2915	
0.86	7.3721	13.200	-0.2737	0.2439
0.86	8.3774	15.000	-0.2633	
0.86	9.7177	17.400	-0.2407	0.2103
1.00	7.0136	10.800	0.1907	
1.00	8.5722	13.200	0.2968	0.3744
1.00	9.7411	15.000	0.2138	
1.00	10.5204	16.200	0.2456	
1.00	11.2997	17.400	0.2810	
ETA	Y	X	CP-UP	CP-LOW

TABLE AI.- Concluded

(b) Concluded

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
4	88	1.62	12.000	0.0	454.9	1084.2	247.6	1.998

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.2393
10.80	3.7873	0.540	-0.2562	
10.80	4.3484	0.620	-0.3159	
10.80	4.7692	0.680	-0.3196	
10.80	4.9095	0.700		0.2521
10.80	5.0498	0.720	-0.3131	
10.80	6.0317	0.860	-0.2907	
10.80	6.4876	0.925	-0.2851	0.2586
10.80	6.8032	0.970	-0.2548	
10.80	6.9084	0.985	-0.2096	0.3809
10.80	7.0136	1.000	0.1899	
13.20	3.4289	0.400	-0.1655	0.2590
13.20	3.9432	0.460	-0.1797	
13.20	4.6290	0.540	-0.2522	0.2726
13.20	4.9719	0.580	-0.2840	
13.20	5.3148	0.620	-0.3213	0.2726
13.20	5.6576	0.660	-0.3067	
13.20	5.8291	0.680	-0.3008	
13.20	6.0005	0.700	-0.2908	0.2633
13.20	6.1720	0.720	-0.2895	
13.20	6.3434	0.740	-0.2794	
13.20	6.6863	0.780	-0.2859	0.2594
13.20	7.0292	0.820	-0.2778	
13.20	7.3721	0.860	-0.2769	0.2459
13.20	7.7150	0.900	-0.2705	0.2649
13.20	7.9293	0.925	-0.2625	0.2733
13.20	8.1436	0.950	-0.2611	0.2997
13.20	8.3150	0.970	-0.2588	0.3234
13.20	8.4436	0.985	-0.2190	0.4015
13.20	8.5293	0.995	-0.0833	0.5005
13.20	8.5722	1.000	0.2988	0.3725
15.00	5.2602	0.540	-0.2398	
15.00	6.0395	0.620	-0.3080	
15.00	7.0136	0.720	-0.2845	
15.00	8.3774	0.860	-0.2627	
15.00	9.7411	1.000	0.2209	

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2484	
17.40	6.1018	0.540	-0.2217	0.2493
17.40	7.0058	0.620	-0.2991	0.2483
17.40	8.1358	0.720	-0.2641	0.2344
17.40	9.7177	0.860	-0.2463	0.2104
17.40	11.2997	1.000	0.2823	
19.80	6.9435	0.540	-0.2165	0.2295
19.80	7.9721	0.620	-0.3023	0.2308
19.80	9.2580	0.720	-0.2621	0.2096

X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.2562	
0.54	4.6290	13.200	-0.2522	0.2726
0.54	5.2602	15.000	-0.2398	
0.54	6.1018	17.400	-0.2217	0.2493
0.54	6.9435	19.800	-0.2165	0.2295
0.62	4.3484	10.800	-0.3159	
0.62	5.3148	13.200	-0.3213	0.2726
0.62	6.0395	15.000	-0.3080	
0.62	7.0058	17.400	-0.2991	0.2483
0.62	7.9721	19.800	-0.3023	0.2096
0.72	5.0498	10.800	-0.3131	
0.72	6.1720	13.200	-0.2895	
0.72	7.0136	15.000	-0.2845	
0.72	8.1358	17.400	-0.2641	0.2344
0.72	9.2580	19.800	-0.2621	0.2096
0.86	6.0317	10.800	-0.2907	
0.86	7.3721	13.200	-0.2769	0.2459
0.86	8.3774	15.000	-0.2627	
0.86	9.7177	17.400	-0.2463	0.2104
1.00	7.0136	10.800	0.1899	
1.00	8.5722	13.200	0.2988	0.3725
1.00	9.7411	15.000	0.2209	
1.00	10.5204	16.200	0.2484	
1.00	11.2997	17.400	0.2823	

ETA	Y	X	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4065
2	-0.3463
3	-0.3451
4	-0.2580

TABLE AII.- CAMBERED WING-BODY-CANARD CONFIGURATION WITH NOSE 1

(a) $\delta_c = 0°$

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
5	112	1.62	8.930	0.0	454.8	1083.9	247.5	1.998

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1589
10.80	3.7873	0.540	-0.1637	
10.80	4.3484	0.620	-0.1579	
10.80	4.7692	0.680	-0.1652	
10.80	4.9095	0.700		0.1644
10.80	5.0498	0.720	-0.1669	
10.80	6.0317	0.860	-0.2255	
10.80	6.4876	0.925	-0.2246	0.1252
10.80	6.8032	0.970	-0.1942	
10.80	6.9084	0.985	-0.1090	0.2105
10.80	7.0136	1.000	0.2756	
13.20	3.4289	0.400	-0.1334	0.1806
13.20	3.9432	0.460	-0.1458	
13.20	4.6290	0.540	-0.1600	0.2007
13.20	4.9719	0.580	-0.1647	
13.20	5.3148	0.620	-0.1700	0.2011
13.20	5.6576	0.660	-0.1556	
13.20	5.8291	0.680	-0.1585	
13.20	6.0005	0.700	-0.1597	0.1859
13.20	6.1720	0.720	-0.1559	
13.20	6.3434	0.740	-0.1589	
13.20	6.6863	0.780	-0.1856	0.1683
13.20	7.0292	0.820	-0.2153	
13.20	7.3721	0.860	-0.2139	0.1414
13.20	7.7150	0.900	-0.2086	0.1476
13.20	7.9293	0.925	-0.2015	0.1545
13.20	8.1436	0.950	-0.1894	0.1666
13.20	8.3150	0.970	-0.1602	0.1838
13.20	8.4436	0.985	-0.0732	0.2388
13.20	8.5293	0.995	0.0260	0.4081
13.20	8.5722	1.000	0.3545	0.3928
15.00	5.2602	0.540	-0.1611	
15.00	6.0395	0.620	-0.1657	
15.00	7.0136	0.720	-0.1548	
15.00	8.3774	0.860	-0.1940	
15.00	9.7411	1.000	0.2887	

X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.3986
2	-0.3018
3	-0.3085
4	-0.2505

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.3144	
17.40	6.1018	0.540	-0.1607	0.1710
17.40	7.0058	0.620	-0.1679	0.1691
17.40	8.1358	0.720	-0.1439	0.1544
17.40	9.7177	0.860	-0.1713	0.1146
17.40	11.2997	1.000	0.3363	
19.80	6.9435	0.540	-0.1564	0.1521
19.80	7.9721	0.620	-0.1730	0.1515
19.80	9.2580	0.720	-0.1549	0.1309

X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1637	
0.54	4.6290	13.200	-0.1600	0.2007
0.54	5.2602	15.000	-0.1611	
0.54	6.1018	17.400	-0.1607	0.1710
0.54	6.9435	19.800	-0.1564	0.1521
0.62	4.3484	10.800	-0.1579	
0.62	5.3148	13.200	-0.1700	0.2011
0.62	6.0395	15.000	-0.1657	
0.62	7.0058	17.400	-0.1679	0.1691
0.62	7.9721	19.800	-0.1730	0.1309
0.72	5.0498	10.800	-0.1669	
0.72	6.1720	13.200	-0.1559	
0.72	7.0136	15.000	-0.1548	
0.72	8.1358	17.400	-0.1439	0.1544
0.72	9.2580	19.800	-0.1549	0.1309
0.86	6.0317	10.800	-0.2255	
0.86	7.3721	13.200	-0.2139	0.1414
0.86	8.3774	15.000	-0.1940	
0.86	9.7177	17.400	-0.1713	0.1146
1.00	7.0136	10.800	0.2756	
1.00	8.5722	13.200	0.3545	0.3928
1.00	9.7411	15.000	0.2887	
1.00	10.5204	16.200	0.3144	
1.00	11.2997	17.400	0.3363	

ETA	Y	X	CP-UP	CP-LOW

TABLE AII.- Continued

(a) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
5	114	1.62	10.930	0.0	454.7	1083.8	247.5	1.998

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.2032
10.80	3.7873	0.540	-0.1957	
10.80	4.3484	0.620	-0.1920	
10.80	4.7692	0.680	-0.1983	
10.80	4.9095	0.700		0.2125
10.80	5.0498	0.720	-0.2152	
10.80	6.0317	0.860	-0.3050	
10.80	6.4876	0.925	-0.2977	0.1977
10.80	6.8032	0.970	-0.2579	
10.80	6.9084	0.985	-0.1994	0.3078
10.80	7.0136	1.000	0.1973	
13.20	3.4289	0.400	-0.1619	0.2305
13.20	3.9432	0.460	-0.1763	
13.20	4.6290	0.540	-0.1962	0.2464
13.20	4.9719	0.580	-0.2018	
13.20	5.3148	0.620	-0.2071	0.2484
13.20	5.6576	0.660	-0.1993	
13.20	5.8291	0.680	-0.2113	
13.20	6.0005	0.700	-0.2224	0.2333
13.20	6.1720	0.720	-0.2445	
13.20	6.3434	0.740	-0.2664	
13.20	6.6863	0.780	-0.2799	0.2257
13.20	7.0292	0.820	-0.2797	
13.20	7.3721	0.860	-0.2740	0.2084
13.20	7.7150	0.900	-0.2689	0.2212
13.20	7.9293	0.925	-0.2587	0.2328
13.20	8.1436	0.950	-0.2431	0.2658
13.20	8.3150	0.970	-0.2390	0.2854
13.20	8.4436	0.985	-0.1646	0.3470
13.20	8.5293	0.995	-0.0608	0.4692
13.20	8.5722	1.000	0.3111	0.3674
15.00	5.2602	0.540	-0.1997	
15.00	6.0395	0.620	-0.2031	
15.00	7.0136	0.720	-0.2671	
15.00	8.3774	0.860	-0.2545	
15.00	9.7411	1.000	0.2331	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4109
2	-0.3199
3	-0.3234
4	-0.2561

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2610	
17.40	6.1018	0.540	-0.1943	0.2191
17.40	7.0058	0.620	-0.2077	0.2180
17.40	8.1358	0.720	-0.2563	0.2045
17.40	9.7177	0.860	-0.2309	0.1795
17.40	11.2997	1.000	0.2926	
19.80	6.9435	0.540	-0.1924	0.1995
19.80	7.9721	0.620	-0.2166	0.1991
19.80	9.2580	0.720	-0.2587	0.1792
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1957	
0.54	4.6290	13.200	-0.1962	0.2464
0.54	5.2602	15.000	-0.1997	
0.54	6.1018	17.400	-0.1943	0.2191
0.54	6.9435	19.800	-0.1924	0.1995
0.62	4.3484	10.800	-0.1920	
0.62	5.3148	13.200	-0.2071	0.2484
0.62	6.0395	15.000	-0.2031	
0.62	7.0058	17.400	-0.2077	0.2180
0.62	7.9721	19.800	-0.2166	0.1792
0.72	5.0498	10.800	-0.2152	
0.72	6.1720	13.200	-0.2445	
0.72	7.0136	15.000	-0.2671	
0.72	8.1358	17.400	-0.2563	0.2045
0.72	9.2580	19.800	-0.2587	0.1792
0.86	6.0317	10.800	-0.3050	
0.86	7.3721	13.200	-0.2740	0.2084
0.86	8.3774	15.000	-0.2545	
0.86	9.7177	17.400	-0.2309	0.1795
1.00	7.0136	10.800	0.1973	
1.00	8.5722	13.200	0.3111	0.3674
1.00	9.7411	15.000	0.2331	
1.00	10.5204	16.200	0.2610	
1.00	11.2997	17.400	0.2926	
ETA	Y	X	CP-UP	CP-LOW

TABLE AII.- Continued

(a) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
5	115	1.62	11.960	0.0	455.6	1086.0	248.0	2.002

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.2278
10.80	3.7873	0.540	-0.2133	
10.80	4.3484	0.620	-0.2215	
10.80	4.7692	0.680	-0.2353	
10.80	4.9095	0.700		0.2377
10.80	5.0498	0.720	-0.2967	
10.80	6.0317	0.860	-0.3355	
10.80	6.4876	0.925	-0.3204	0.2396
10.80	6.8032	0.970	-0.2858	
10.80	6.9084	0.985	-0.2123	0.3594
10.80	7.0136	1.000	0.1627	
13.20	3.4289	0.400	-0.1765	0.2579
13.20	3.9432	0.460	-0.1944	
13.20	4.6290	0.540	-0.2163	0.2725
13.20	4.9719	0.580	-0.2223	
13.20	5.3148	0.620	-0.2253	0.2739
13.20	5.6576	0.660	-0.2395	
13.20	5.8291	0.680	-0.2621	
13.20	6.0005	0.700	-0.2799	0.2646
13.20	6.1720	0.720	-0.3026	
13.20	6.3434	0.740	-0.2979	
13.20	6.6863	0.780	-0.3085	0.2566
13.20	7.0292	0.820	-0.3075	
13.20	7.3721	0.860	-0.3088	0.2396
13.20	7.7150	0.900	-0.2990	0.2615
13.20	7.9293	0.925	-0.2935	0.2721
13.20	8.1436	0.950	-0.2825	0.3100
13.20	8.3150	0.970	-0.2753	0.3290
13.20	8.4436	0.985	-0.2006	0.3942
13.20	8.5293	0.995	-0.1006	0.4923
13.20	8.5722	1.000	0.2770	0.3508
15.00	5.2602	0.540	-0.2206	
15.00	6.0395	0.620	-0.2277	
15.00	7.0136	0.720	-0.3014	
15.00	8.3774	0.860	-0.2781	
15.00	9.7411	1.000	0.2030	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4100
2	-0.3621
3	-0.3431
4	-0.2558

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2376	
17.40	6.1018	0.540	-0.2142	0.2433
17.40	7.0058	0.620	-0.2346	0.2452
17.40	8.1358	0.720	-0.2821	0.2330
17.40	9.7177	0.860	-0.2597	0.2114
17.40	11.2997	1.000	0.2757	
19.80	6.9435	0.540	-0.2126	0.2253
19.80	7.9721	0.620	-0.2583	0.2225
19.80	9.2580	0.720	-0.2874	0.2051
X	Y	ETA	CP-UP	CP-LOW
ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.2133	
0.54	4.6290	13.200	-0.2163	0.2725
0.54	5.2602	15.000	-0.2206	
0.54	6.1018	17.400	-0.2142	0.2433
0.54	6.9435	19.800	-0.2126	0.2253
0.62	4.3484	10.800	-0.2215	
0.62	5.3148	13.200	-0.2253	0.2739
0.62	6.0395	15.000	-0.2277	
0.62	7.0058	17.400	-0.2346	0.2452
0.62	7.9721	19.800	-0.2583	0.2051
0.72	5.0498	10.800	-0.2967	
0.72	6.1720	13.200	-0.3026	
0.72	7.0136	15.000	-0.3014	
0.72	8.1358	17.400	-0.2821	0.2330
0.72	9.2580	19.800	-0.2874	0.2051
0.86	6.0317	10.800	-0.3355	
0.86	7.3721	13.200	-0.3088	0.2396
0.86	8.3774	15.000	-0.2781	
0.86	9.7177	17.400	-0.2597	0.2114
1.00	7.0136	10.800	0.1627	
1.00	8.5722	13.200	0.2770	0.3508
1.00	9.7411	15.000	0.2030	
1.00	10.5204	16.200	0.2376	
1.00	11.2997	17.400	0.2757	
ETA	Y	X	CP-UP	CP-LOW

TABLE AII.- Continued

(a) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	HO(PSF)	P(PSF)	RE/FT(X10-6)
8	188	1.62	8.010	0.0	453.8	1081.7	247.0	1.994

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1338
10.80	3.7873	0.540	-0.1491	
10.80	4.3484	0.620	-0.1454	
10.80	4.7692	0.680	-0.1457	
10.80	4.9095	0.700		0.1405
10.80	5.0498	0.720	-0.1602	
10.80	6.0317	0.860	-0.1878	
10.80	6.4876	0.925	-0.2054	0.0864
10.80	6.8032	0.970	-0.1751	
10.80	6.9084	0.985	-0.0568	0.1450
10.80	7.0136	1.000	0.3089	
13.20	3.4289	0.400	-0.1189	0.1605
13.20	3.9432	0.460	-0.1331	
13.20	4.6290	0.540	-0.1427	0.1757
13.20	4.9719	0.580	-0.1432	
13.20	5.3148	0.620	-0.1444	0.1791
13.20	5.6576	0.660	-0.1408	
13.20	5.8291	0.680	-0.1405	
13.20	6.0005	0.700	-0.1398	0.1612
13.20	6.1720	0.720	-0.1444	
13.20	6.3434	0.740	-0.1448	
13.20	6.6863	0.780	-0.1475	0.1442
13.20	7.0292	0.820	-0.1719	
13.20	7.3721	0.860	-0.1775	0.1096
13.20	7.7150	0.900	-0.1739	0.1118
13.20	7.9293	0.925	-0.1702	0.1108
13.20	8.1436	0.950	-0.1622	0.1079
13.20	8.3150	0.970	-0.1406	0.1273
13.20	8.4436	0.985	-0.0095	0.1699
13.20	8.5293	0.995	0.0698	0.3662
13.20	8.5722	1.000	0.3717	0.3970
15.00	5.2602	0.540	-0.1424	
15.00	6.0395	0.620	-0.1457	
15.00	7.0136	0.720	-0.1331	
15.00	8.3774	0.860	-0.1585	
15.00	9.7411	1.000	0.3185	

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.3434	
17.40	6.1018	0.540	-0.1484	0.1482
17.40	7.0058	0.620	-0.1462	0.1468
17.40	8.1358	0.720	-0.1210	0.1293
17.40	9.7177	0.860	-0.1397	0.0836
17.40	11.2997	1.000	0.3584	
19.80	6.9435	0.540	-0.1400	0.1308
19.80	7.9721	0.620	-0.1571	0.1301
19.80	9.2580	0.720	-0.1314	0.1098

X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1491	
0.54	4.6290	13.200	-0.1427	0.1757
0.54	5.2602	15.000	-0.1424	
0.54	6.1018	17.400	-0.1484	0.1482
0.54	6.9435	19.800	-0.1400	0.1308
0.62	4.3484	10.800	-0.1454	
0.62	5.3148	13.200	-0.1444	0.1791
0.62	6.0395	15.000	-0.1457	
0.62	7.0058	17.400	-0.1462	0.1468
0.62	7.9721	19.800	-0.1571	0.1098
0.72	5.0498	10.800	-0.1602	
0.72	6.1720	13.200	-0.1444	
0.72	7.0136	15.000	-0.1331	
0.72	8.1358	17.400	-0.1210	0.1293
0.72	9.2580	19.800	-0.1314	0.1098
0.86	6.0317	10.800	-0.1878	
0.86	7.3721	13.200	-0.1775	0.1096
0.86	8.3774	15.000	-0.1585	
0.86	9.7177	17.400	-0.1397	0.0836
1.00	7.0136	10.800	0.3089	
1.00	8.5722	13.200	0.3717	0.3970
1.00	9.7411	15.000	0.3185	
1.00	10.5204	16.200	0.3434	
1.00	11.2997	17.400	0.3584	

ETA	Y	X	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.3804
2	-0.3256
3	-0.3053
4	-0.2490

TABLE AII.- Continued

(a) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
8	190	1.62	9.020	0.0	452.8	1079.2	246.5	1.989

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1589
10.80	3.7873	0.540	-0.1644	
10.80	4.3484	0.620	-0.1644	
10.80	4.7692	0.680	-0.1674	
10.80	4.9095	0.700		0.1623
10.80	5.0498	0.720	-0.1706	
10.80	6.0317	0.860	-0.2311	
10.80	6.4876	0.925	-0.2259	0.1297
10.80	6.8032	0.970	-0.2014	
10.80	6.9084	0.985	-0.1160	0.2146
10.80	7.0136	1.000	0.2714	
13.20	3.4289	0.400	-0.1344	0.1838
13.20	3.9432	0.460	-0.1525	
13.20	4.6290	0.540	-0.1614	0.2002
13.20	4.9719	0.580	-0.1614	
13.20	5.3148	0.620	-0.1668	0.2011
13.20	5.6576	0.660	-0.1673	
13.20	5.8291	0.680	-0.1731	
13.20	6.0005	0.700	-0.1629	0.1895
13.20	6.1720	0.720	-0.1593	
13.20	6.3434	0.740	-0.1621	
13.20	6.6863	0.780	-0.1758	0.1713
13.20	7.0292	0.820	-0.2177	
13.20	7.3721	0.860	-0.1880	0.1442
13.20	7.7150	0.900	-0.2129	0.1488
13.20	7.9293	0.925	-0.2025	0.1580
13.20	8.1436	0.950	-0.1859	0.1720
13.20	8.3150	0.970	-0.1665	0.1939
13.20	8.4436	0.985	-0.0693	0.2419
13.20	8.5293	0.995	0.0340	0.4125
13.20	8.5722	1.000	0.3527	0.3939
15.00	5.2602	0.540	-0.1627	
15.00	6.0395	0.620	-0.1685	
15.00	7.0136	0.720	-0.1597	
15.00	8.3774	0.860	-0.1984	
15.00	9.7411	1.000	0.2871	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4018
2	-0.3013
3	-0.3102
4	-0.2518

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.3137	
17.40	6.1018	0.540	-0.1674	0.1709
17.40	7.0058	0.620	-0.1706	0.1697
17.40	8.1358	0.720	-0.1494	0.1542
17.40	9.7177	0.860	-0.1734	0.1155
17.40	11.2997	1.000	0.3351	
19.80	6.9435	0.540	-0.1580	0.1511
19.80	7.9721	0.620	-0.1793	0.1520
19.80	9.2580	0.720	-0.1586	0.1310
X	Y	ETA	CP-UP	CP-LOW
ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1644	
0.54	4.6290	13.200	-0.1614	0.2002
0.54	5.2602	15.000	-0.1627	
0.54	6.1018	17.400	-0.1674	0.1709
0.54	6.9435	19.800	-0.1580	0.1511
0.62	4.3484	10.800	-0.1644	
0.62	5.3148	13.200	-0.1668	0.2011
0.62	6.0395	15.000	-0.1685	
0.62	7.0058	17.400	-0.1706	0.1697
0.62	7.9721	19.800	-0.1793	0.1310
0.72	5.0498	10.800	-0.1706	
0.72	6.1720	13.200	-0.1593	
0.72	7.0136	15.000	-0.1597	
0.72	8.1358	17.400	-0.1494	0.1542
0.72	9.2580	19.800	-0.1586	0.1310
0.86	6.0317	10.800	-0.2311	
0.86	7.3721	13.200	-0.1880	0.1442
0.86	8.3774	15.000	-0.1984	
0.86	9.7177	17.400	-0.1734	0.1155
1.00	7.0136	10.800	0.2714	
1.00	8.5722	13.200	0.3527	0.3939
1.00	9.7411	15.000	0.2871	
1.00	10.5204	16.200	0.3137	
1.00	11.2997	17.400	0.3351	
ETA	Y	X	CP-UP	CP-LOW

TABLE AII.- Continued

(a) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
8	191	1.62	10.010	0.0	452.6	1078.8	246.4	1.988

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1803
10.80	3.7873	0.540	-0.1842	
10.80	4.3484	0.620	-0.1803	
10.80	4.7692	0.680	-0.1827	
10.80	4.9095	0.700		0.1871
10.80	5.0498	0.720	-0.1878	
10.80	6.0317	0.860	-0.2634	
10.80	6.4876	0.925	-0.2623	0.1614
10.80	6.8032	0.970	-0.2266	
10.80	6.9084	0.985	-0.1541	0.2622
10.80	7.0136	1.000	0.2286	
13.20	3.4289	0.400	-0.1546	0.2071
13.20	3.9432	0.460	-0.1752	
13.20	4.6290	0.540	-0.1885	0.2242
13.20	4.9719	0.580	-0.1905	
13.20	5.3148	0.620	-0.1917	0.2258
13.20	5.6576	0.660	-0.1930	
13.20	5.8291	0.680	-0.1937	
13.20	6.0005	0.700	-0.1993	0.2154
13.20	6.1720	0.720	-0.2213	
13.20	6.3434	0.740	-0.2379	
13.20	6.6863	0.780	-0.2627	0.1994
13.20	7.0292	0.820	-0.2519	
13.20	7.3721	0.860	-0.2477	0.1778
13.20	7.7150	0.900	-0.2408	0.1844
13.20	7.9293	0.925	-0.2281	0.1958
13.20	8.1436	0.950	-0.2131	0.2278
13.20	8.3150	0.970	-0.2040	0.2377
13.20	8.4436	0.985	-0.1187	0.2922
13.20	8.5293	0.995	-0.0230	0.4423
13.20	8.5722	1.000	0.3274	0.3791
15.00	5.2602	0.540	-0.1818	
15.00	6.0395	0.620	-0.1855	
15.00	7.0136	0.720	-0.1944	
15.00	8.3774	0.860	-0.2221	
15.00	9.7411	1.000	0.2608	

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2851	
17.40	6.1018	0.540	-0.1821	0.1970
17.40	7.0058	0.620	-0.1908	0.1951
17.40	8.1358	0.720	-0.2023	0.1829
17.40	9.7177	0.860	-0.2065	0.1481
17.40	11.2997	1.000	0.3151	
19.80	6.9435	0.540	-0.1747	0.1771
19.80	7.9721	0.620	-0.1990	0.1763
19.80	9.2580	0.720	-0.2131	0.1569

X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1842	
0.54	4.6290	13.200	-0.1885	0.2242
0.54	5.2602	15.000	-0.1818	
0.54	6.1018	17.400	-0.1821	0.1970
0.54	6.9435	19.800	-0.1747	0.1771
0.62	4.3484	10.800	-0.1803	
0.62	5.3148	13.200	-0.1917	0.2258
0.62	6.0395	15.000	-0.1855	
0.62	7.0058	17.400	-0.1908	0.1951
0.62	7.9721	19.800	-0.1990	0.1569
0.72	5.0498	10.800	-0.1878	
0.72	6.1720	13.200	-0.2213	
0.72	7.0136	15.000	-0.1944	
0.72	8.1358	17.400	-0.2023	0.1829
0.72	9.2580	19.800	-0.2131	0.1569
0.86	6.0317	10.800	-0.2634	
0.86	7.3721	13.200	-0.2477	0.1778
0.86	8.3774	15.000	-0.2221	
0.86	9.7177	17.400	-0.2065	0.1481
1.00	7.0136	10.800	0.2286	
1.00	8.5722	13.200	0.3274	0.3791
1.00	9.7411	15.000	0.2608	
1.00	10.5204	16.200	0.2851	
1.00	11.2997	17.400	0.3151	

ETA	Y	X	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4125
2	-0.3172
3	-0.3135
4	-0.2560

TABLE AII.- Continued

(a) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
8	192	1.62	10.010	0.0	457.5	1090.5	249.1	2.010

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1730
10.80	3.7873	0.540	-0.1857	
10.80	4.3484	0.620	-0.1850	
10.80	4.7692	0.680	-0.1870	
10.80	4.9095	0.700		0.1792
10.80	5.0498	0.720	-0.1908	
10.80	6.0317	0.860	-0.2672	
10.80	6.4876	0.925	-0.2632	0.1580
10.80	6.8032	0.970	-0.2309	
10.80	6.9084	0.985	-0.1589	0.2572
10.80	7.0136	1.000	0.2241	
13.20	3.4289	0.400	-0.1531	0.2019
13.20	3.9432	0.460	-0.1776	
13.20	4.6290	0.540	-0.1821	0.2149
13.20	4.9719	0.580	-0.1913	
13.20	5.3148	0.620	-0.1819	0.2183
13.20	5.6576	0.660	-0.1825	
13.20	5.8291	0.680	-0.1888	
13.20	6.0005	0.700	-0.1906	0.2011
13.20	6.1720	0.720	-0.1909	
13.20	6.3434	0.740	-0.2003	
13.20	6.6863	0.780	-0.2505	0.1931
13.20	7.0292	0.820	-0.2588	
13.20	7.3721	0.860	-0.2266	0.1717
13.20	7.7150	0.900	-0.2430	0.1810
13.20	7.9293	0.925	-0.2368	0.1910
13.20	8.1436	0.950	-0.2170	0.2266
13.20	8.3150	0.970	-0.2088	0.2359
13.20	8.4436	0.985	-0.1256	0.2880
13.20	8.5293	0.995	-0.0231	0.4340
13.20	8.5722	1.000	0.3158	0.3664
15.00	5.2602	0.540	-0.1857	
15.00	6.0395	0.620	-0.1902	
15.00	7.0136	0.720	-0.2052	
15.00	8.3774	0.860	-0.2331	
15.00	9.7411	1.000	0.2517	

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2767	
17.40	6.1018	0.540	-0.1846	0.1881
17.40	7.0058	0.620	-0.1940	0.1889
17.40	8.1358	0.720	-0.2024	0.1747
17.40	9.7177	0.860	-0.2058	0.1405
17.40	11.2997	1.000	0.3055	
19.80	6.9435	0.540	-0.1814	0.1697
19.80	7.9721	0.620	-0.2018	0.1694
19.80	9.2580	0.720	-0.2229	0.1499

BASE PRESSURES

PORT	CP
1	-0.4157
2	-0.3253
3	-0.3167
4	-0.2583

X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1857	
0.54	4.6290	13.200	-0.1821	0.2149
0.54	5.2602	15.000	-0.1857	
0.54	6.1018	17.400	-0.1846	0.1881
0.54	6.9435	19.800	-0.1814	0.1697
0.62	4.3484	10.800	-0.1850	
0.62	5.3148	13.200	-0.1819	0.2183
0.62	6.0395	15.000	-0.1902	
0.62	7.0058	17.400	-0.1940	0.1889
0.62	7.9721	19.800	-0.2018	0.1499
0.72	5.0498	10.800	-0.1908	
0.72	6.1720	13.200	-0.1909	
0.72	7.0136	15.000	-0.2052	
0.72	8.1358	17.400	-0.2024	0.1747
0.72	9.2580	19.800	-0.2229	0.1499
0.86	6.0317	10.800	-0.2672	
0.86	7.3721	13.200	-0.2266	0.1717
0.86	8.3774	15.000	-0.2331	
0.86	9.7177	17.400	-0.2058	0.1405
1.00	7.0136	10.800	0.2241	
1.00	8.5722	13.200	0.3158	0.3664
1.00	9.7411	15.000	0.2517	
1.00	10.5204	16.200	0.2767	
1.00	11.2997	17.400	0.3055	

ETA	Y	X	CP-UP	CP-LOW

TABLE AII.- Continued

(a) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
8	193	1.62	11.030	0.0	453.3	1080.3	246.7	1.991

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.2043
10.80	3.7873	0.540	-0.1992	
10.80	4.3484	0.620	-0.2226	
10.80	4.7692	0.680	-0.2039	
10.80	4.9095	0.700		0.2125
10.80	5.0498	0.720	-0.2229	
10.80	6.0317	0.860	-0.3097	
10.80	6.4876	0.925	-0.3042	0.2015
10.80	6.8032	0.970	-0.2579	
10.80	6.9084	0.985	-0.1868	0.3116
10.80	7.0136	1.000	0.1917	
13.20	3.4289	0.400	-0.1641	0.2335
13.20	3.9432	0.460	-0.1813	
13.20	4.6290	0.540	-0.1983	0.2506
13.20	4.9719	0.580	-0.2041	
13.20	5.3148	0.620	-0.2053	0.2493
13.20	5.6576	0.660	-0.2073	
13.20	5.8291	0.680	-0.2093	
13.20	6.0005	0.700	-0.2254	0.2406
13.20	6.1720	0.720	-0.2506	
13.20	6.3434	0.740	-0.2499	
13.20	6.6863	0.780	-0.2771	0.2285
13.20	7.0292	0.820	-0.2790	
13.20	7.3721	0.860	-0.2701	0.2119
13.20	7.7150	0.900	-0.2735	0.2247
13.20	7.9293	0.925	-0.2580	0.2377
13.20	8.1436	0.950	-0.2497	0.2706
13.20	8.3150	0.970	-0.2421	0.2908
13.20	8.4436	0.985	-0.1640	0.3553
13.20	8.5293	0.995	-0.0654	0.4701
13.20	8.5722	1.000	0.3053	0.3696
15.00	5.2602	0.540	-0.2038	
15.00	6.0395	0.620	-0.2050	
15.00	7.0136	0.720	-0.2685	
15.00	8.3774	0.860	-0.2570	
15.00	9.7411	1.000	0.2297	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4109
2	-0.3262
3	-0.3255
4	-0.2569

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2564	
17.40	6.1018	0.540	-0.2000	0.2186
17.40	7.0058	0.620	-0.2100	0.2191
17.40	8.1358	0.720	-0.2605	0.2102
17.40	9.7177	0.860	-0.2347	0.1841
17.40	11.2997	1.000	0.2964	
19.80	6.9435	0.540	-0.1952	0.2030
19.80	7.9721	0.620	-0.2218	0.1998
19.80	9.2580	0.720	-0.2627	0.1804
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1992	
0.54	4.6290	13.200	-0.1983	0.2506
0.54	5.2602	15.000	-0.2038	
0.54	6.1018	17.400	-0.2000	0.2186
0.54	6.9435	19.800	-0.1952	0.2030
0.62	4.3484	10.800	-0.2226	
0.62	5.3148	13.200	-0.2053	0.2493
0.62	6.0395	15.000	-0.2050	
0.62	7.0058	17.400	-0.2100	0.2191
0.62	7.9721	19.800	-0.2218	0.1804
0.72	5.0498	10.800	-0.2229	
0.72	6.1720	13.200	-0.2506	
0.72	7.0136	15.000	-0.2685	
0.72	8.1358	17.400	-0.2605	0.2102
0.72	9.2580	19.800	-0.2627	0.1804
0.86	6.0317	10.800	-0.3097	
0.86	7.3721	13.200	-0.2701	0.2119
0.86	8.3774	15.000	-0.2570	
0.86	9.7177	17.400	-0.2347	0.1841
1.00	7.0136	10.800	0.1917	
1.00	8.5722	13.200	0.3053	0.3696
1.00	9.7411	15.000	0.2297	
1.00	10.5204	16.200	0.2564	
1.00	11.2997	17.400	0.2964	
ETA	Y	X	CP-UP	CP-LOW

TABLE AII.- Continued

(a) Concluded

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
8	194	1.62	12.030	0.0	452.6	1078.6	246.3	1.988

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.2291
10.80	3.7873	0.540	-0.2137	
10.80	4.3484	0.620	-0.2237	
10.80	4.7692	0.680	-0.2404	
10.80	4.9095	0.700		0.2389
10.80	5.0498	0.720	-0.3017	
10.80	6.0317	0.860	-0.3381	
10.80	6.4876	0.925	-0.3203	0.2382
10.80	6.8032	0.970	-0.2803	
10.80	6.9084	0.985	-0.2085	0.3609
10.80	7.0136	1.000	0.1615	
13.20	3.4289	0.400	-0.1790	0.2612
13.20	3.9432	0.460	-0.2156	
13.20	4.6290	0.540	-0.2282	0.2749
13.20	4.9719	0.580	-0.2368	
13.20	5.3148	0.620	-0.2502	0.2749
13.20	5.6576	0.660	-0.2619	
13.20	5.8291	0.680	-0.2782	
13.20	6.0005	0.700	-0.3015	0.2652
13.20	6.1720	0.720	-0.3141	
13.20	6.3434	0.740	-0.3142	
13.20	6.6863	0.780	-0.3153	0.2569
13.20	7.0292	0.820	-0.3108	
13.20	7.3721	0.860	-0.2872	0.2428
13.20	7.7150	0.900	-0.2998	0.2634
13.20	7.9293	0.925	-0.2894	0.2755
13.20	8.1436	0.950	-0.2832	0.3133
13.20	8.3150	0.970	-0.2778	0.3350
13.20	8.4436	0.985	-0.2037	0.3974
13.20	8.5293	0.995	-0.1079	0.4940
13.20	8.5722	1.000	0.2798	0.3482
15.00	5.2602	0.540	-0.2207	
15.00	6.0395	0.620	-0.2328	
15.00	7.0136	0.720	-0.3060	
15.00	8.3774	0.860	-0.2799	
15.00	9.7411	1.000	0.2018	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4103
2	-0.3622
3	-0.3453
4	-0.2567

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2402	
17.40	6.1018	0.540	-0.2168	0.2427
17.40	7.0058	0.620	-0.2354	0.2451
17.40	8.1358	0.720	-0.2876	0.2349
17.40	9.7177	0.860	-0.2636	0.2139
17.40	11.2997	1.000	0.2751	
19.80	6.9435	0.540	-0.2147	0.2296
19.80	7.9721	0.620	-0.2573	0.2282
19.80	9.2580	0.720	-0.2865	0.2063
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.2137	
0.54	4.6290	13.200	-0.2282	0.2749
0.54	5.2602	15.000	-0.2207	
0.54	6.1018	17.400	-0.2168	0.2427
0.54	6.9435	19.800	-0.2147	0.2296
0.62	4.3484	10.800	-0.2237	
0.62	5.3148	13.200	-0.2502	0.2749
0.62	6.0395	15.000	-0.2328	
0.62	7.0058	17.400	-0.2354	0.2451
0.62	7.9721	19.800	-0.2573	0.2063
0.72	5.0498	10.800	-0.3017	
0.72	6.1720	13.200	-0.3141	
0.72	7.0136	15.000	-0.3060	
0.72	8.1358	17.400	-0.2876	0.2349
0.72	9.2580	19.800	-0.2865	0.2063
0.86	6.0317	10.800	-0.3381	
0.86	7.3721	13.200	-0.2872	0.2428
0.86	8.3774	15.000	-0.2799	
0.86	9.7177	17.400	-0.2636	0.2139
1.00	7.0136	10.800	0.1615	
1.00	8.5722	13.200	0.2798	0.3482
1.00	9.7411	15.000	0.2018	
1.00	10.5204	16.200	0.2402	
1.00	11.2997	17.400	0.2751	
ETA	Y	X	CP-UP	CP-LOW

TABLE AII.- Continued

(b) $\delta_c = -5°$

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	HO(PSF)	P(PSF)	RE/FT(X10-6)
6	125	1.62	7.990	0.0	455.1	1084.7	247.7	1.999

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1421
10.80	3.7873	0.540	-0.1531	
10.80	4.3484	0.620	-0.1635	
10.80	4.7692	0.680	-0.1620	
10.80	4.9095	0.700		0.1484
10.80	5.0498	0.720	-0.1575	
10.80	6.0317	0.860	-0.1879	
10.80	6.4876	0.925	-0.1849	0.1015
10.80	6.8032	0.970	-0.1676	
10.80	6.9084	0.985	-0.0507	0.1552
10.80	7.0136	1.000	0.3151	
13.20	3.4289	0.400	-0.1151	0.1639
13.20	3.9432	0.460	-0.1223	
13.20	4.6290	0.540	-0.1463	0.1801
13.20	4.9719	0.580	-0.1535	
13.20	5.3148	0.620	-0.1635	0.1811
13.20	5.6576	0.660	-0.1508	
13.20	5.8291	0.680	-0.1509	
13.20	6.0005	0.700	-0.1426	0.1648
13.20	6.1720	0.720	-0.1368	
13.20	6.3434	0.740	-0.1414	
13.20	6.6863	0.780	-0.1615	0.1450
13.20	7.0292	0.820	-0.1754	
13.20	7.3721	0.860	-0.1718	0.1128
13.20	7.7150	0.900	-0.1670	0.1119
13.20	7.9293	0.925	-0.1584	0.1138
13.20	8.1436	0.950	-0.1562	0.1198
13.20	8.3150	0.970	-0.1363	0.1361
13.20	8.4436	0.985	-0.0004	0.1741
13.20	8.5293	0.995	0.0807	0.3690
13.20	8.5722	1.000	0.3800	0.4054
15.00	5.2602	0.540	-0.1452	
15.00	6.0395	0.620	-0.1494	
15.00	7.0136	0.720	-0.1409	
15.00	8.3774	0.860	-0.1478	
15.00	9.7411	1.000	0.3261	

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.3447	
17.40	6.1018	0.540	-0.1426	0.1495
17.40	7.0058	0.620	-0.1478	0.1483
17.40	8.1358	0.720	-0.1263	0.1301
17.40	9.7177	0.860	-0.1275	0.0806
17.40	11.2997	1.000	0.3668	
19.80	6.9435	0.540	-0.1358	0.1322
19.80	7.9721	0.620	-0.1510	0.1314
19.80	9.2580	0.720	-0.1337	0.1081

X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1531	
0.54	4.6290	13.200	-0.1463	0.1801
0.54	5.2602	15.000	-0.1452	
0.54	6.1018	17.400	-0.1426	0.1495
0.54	6.9435	19.800	-0.1358	0.1322
0.62	4.3484	10.800	-0.1635	
0.62	5.3148	13.200	-0.1635	0.1811
0.62	6.0395	15.000	-0.1494	
0.62	7.0058	17.400	-0.1478	0.1483
0.62	7.9721	19.800	-0.1510	0.1081
0.72	5.0498	10.800	-0.1575	
0.72	6.1720	13.200	-0.1368	
0.72	7.0136	15.000	-0.1409	
0.72	8.1358	17.400	-0.1263	0.1301
0.72	9.2580	19.800	-0.1337	0.1081
0.86	6.0317	10.800	-0.1879	
0.86	7.3721	13.200	-0.1718	0.1128
0.86	8.3774	15.000	-0.1478	
0.86	9.7177	17.400	-0.1275	0.0806
1.00	7.0136	10.800	0.3151	
1.00	8.5722	13.200	0.3800	0.4054
1.00	9.7411	15.000	0.3261	
1.00	10.5204	16.200	0.3447	
1.00	11.2997	17.400	0.3668	

ETA	Y	X	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.3805
2	-0.3274
3	-0.3043
4	-0.2479

TABLE AII.- Continued

(b) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
6	126	1.62	6.010	0.0	455.4	1085.3	247.9	2.000

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1031
10.80	3.7873	0.540	-0.1154	
10.80	4.3484	0.620	-0.1360	
10.80	4.7692	0.680	-0.1151	
10.80	4.9095	0.700		0.1076
10.80	5.0498	0.720	-0.1085	
10.80	6.0317	0.860	-0.0848	
10.80	6.4876	0.925	-0.1000	0.0163
10.80	6.8032	0.970	-0.1028	
10.80	6.9084	0.985	0.0102	0.0284
10.80	7.0136	1.000	0.3688	
13.20	3.4289	0.400	-0.0834	0.1222
13.20	3.9432	0.460	-0.0974	
13.20	4.6290	0.540	-0.1109	0.1365
13.20	4.9719	0.580	-0.1143	
13.20	5.3148	0.620	-0.1140	0.1375
13.20	5.6576	0.660	-0.1036	
13.20	5.8291	0.680	-0.1058	
13.20	6.0005	0.700	-0.0990	0.1179
13.20	6.1720	0.720	-0.0823	
13.20	6.3434	0.740	-0.0896	
13.20	6.6863	0.780	-0.0921	0.0943
13.20	7.0292	0.820	-0.0778	
13.20	7.3721	0.860	-0.0744	0.0442
13.20	7.7150	0.900	-0.0800	0.0328
13.20	7.9293	0.925	-0.0709	0.0254
13.20	8.1436	0.950	-0.0590	-0.0183
13.20	8.3150	0.970	-0.0697	0.0074
13.20	8.4436	0.985	0.0935	0.0087
13.20	8.5293	0.995	0.1661	0.2748
13.20	8.5722	1.000	0.4109	0.4083
15.00	5.2602	0.540	-0.1048	
15.00	6.0395	0.620	-0.1062	
15.00	7.0136	0.720	-0.0921	
15.00	8.3774	0.860	-0.0613	
15.00	9.7411	1.000	0.3716	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.3768
2	-0.2783
3	-0.3075
4	-0.2480

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.3840	
17.40	6.1018	0.540	-0.1039	0.1045
17.40	7.0058	0.620	-0.1013	0.1036
17.40	8.1358	0.720	-0.0726	0.0843
17.40	9.7177	0.860	-0.0372	0.0169
17.40	11.2997	1.000	0.3940	
19.80	6.9435	0.540	-0.0970	0.0900
19.80	7.9721	0.620	-0.1039	0.0863
19.80	9.2580	0.720	-0.0781	0.0603
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1154	
0.54	4.6290	13.200	-0.1109	0.1365
0.54	5.2602	15.000	-0.1048	
0.54	6.1018	17.400	-0.1039	0.1045
0.54	6.9435	19.800	-0.0970	0.0900
0.62	4.3484	10.800	-0.1360	
0.62	5.3148	13.200	-0.1140	0.1375
0.62	6.0395	15.000	-0.1062	
0.62	7.0058	17.400	-0.1013	0.1036
0.62	7.9721	19.800	-0.1039	0.0603
0.72	5.0498	10.800	-0.1085	
0.72	6.1720	13.200	-0.0823	
0.72	7.0136	15.000	-0.0921	
0.72	8.1358	17.400	-0.0726	0.0843
0.72	9.2580	19.800	-0.0781	0.0603
0.86	6.0317	10.800	-0.0848	
0.86	7.3721	13.200	-0.0744	0.0442
0.86	8.3774	15.000	-0.0613	
0.86	9.7177	17.400	-0.0372	0.0169
1.00	7.0136	10.800	0.3688	
1.00	8.5722	13.200	0.4109	0.4083
1.00	9.7411	15.000	0.3716	
1.00	10.5204	16.200	0.3840	
1.00	11.2997	17.400	0.3940	
ETA	Y	X	CP-UP	CP-LOW

TABLE AII.- Continued

(b) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
6	127	1.62	4.010	0.0	455.2	1084.9	247.8	2.000

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.0698
10.80	3.7873	0.540	-0.0829	
10.80	4.3484	0.620	-0.0721	
10.80	4.7692	0.680	-0.0715	
10.80	4.9095	0.700		0.0620
10.80	5.0498	0.720	-0.0586	
10.80	6.0317	0.860	-0.0125	
10.80	6.4876	0.925	-0.0030	-0.1000
10.80	6.8032	0.970	0.0005	
10.80	6.9084	0.985	0.1050	-0.0965
10.80	7.0136	1.000	0.4085	
13.20	3.4289	0.400	-0.0517	0.0843
13.20	3.9432	0.460	-0.0649	
13.20	4.6290	0.540	-0.0726	0.0953
13.20	4.9719	0.580	-0.0733	
13.20	5.3148	0.620	-0.0682	0.0946
13.20	5.6576	0.660	-0.0559	
13.20	5.8291	0.680	-0.0562	
13.20	6.0005	0.700	-0.0464	0.0723
13.20	6.1720	0.720	-0.0453	
13.20	6.3434	0.740	-0.0415	
13.20	6.6863	0.780	-0.0348	0.0370
13.20	7.0292	0.820	-0.0225	
13.20	7.3721	0.860	-0.0135	-0.0298
13.20	7.7150	0.900	0.0088	-0.0881
13.20	7.9293	0.925	0.0228	-0.1228
13.20	8.1436	0.950	0.0434	-0.1427
13.20	8.3150	0.970	0.0553	-0.1475
13.20	8.4436	0.985	0.1921	-0.1521
13.20	8.5293	0.995	0.2593	0.1853
13.20	8.5722	1.000	0.4265	0.4052
15.00	5.2602	0.540	-0.0653	
15.00	6.0395	0.620	-0.0604	
15.00	7.0136	0.720	-0.0374	
15.00	8.3774	0.860	0.0062	
15.00	9.7411	1.000	0.4045	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.3704
2	-0.2988
3	-0.3075
4	-0.2548

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.4098	
17.40	6.1018	0.540	-0.0624	0.0630
17.40	7.0058	0.620	-0.0519	0.0611
17.40	8.1358	0.720	-0.0091	0.0385
17.40	9.7177	0.860	0.0318	-0.0403
17.40	11.2997	1.000	0.4132	
19.80	6.9435	0.540	-0.0534	0.0485
19.80	7.9721	0.620	-0.0528	0.0435
19.80	9.2580	0.720	-0.0214	0.0178
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.0829	
0.54	4.6290	13.200	-0.0726	0.0953
0.54	5.2602	15.000	-0.0653	
0.54	6.1018	17.400	-0.0624	0.0630
0.54	6.9435	19.800	-0.0534	0.0485
0.62	4.3484	10.800	-0.0721	
0.62	5.3148	13.200	-0.0682	0.0946
0.62	6.0395	15.000	-0.0604	
0.62	7.0058	17.400	-0.0519	0.0611
0.62	7.9721	19.800	-0.0528	0.0178
0.72	5.0498	10.800	-0.0586	
0.72	6.1720	13.200	-0.0453	
0.72	7.0136	15.000	-0.0374	
0.72	8.1358	17.400	-0.0091	0.0385
0.72	9.2580	19.800	-0.0214	0.0178
0.86	6.0317	10.800	-0.0125	
0.86	7.3721	13.200	-0.0135	-0.0298
0.86	8.3774	15.000	0.0062	
0.86	9.7177	17.400	0.0318	-0.0403
1.00	7.0136	10.800	0.4085	
1.00	8.5722	13.200	0.4265	0.4052
1.00	9.7411	15.000	0.4045	
1.00	10.5204	16.200	0.4098	
1.00	11.2997	17.400	0.4132	
ETA	Y	X	CP-UP	CP-LOW

TABLE AII.- Continued

(b) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
6	128	1.62	2.010	0.0	455.6	1085.9	248.0	2.002

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.0371
10.80	3.7873	0.540	-0.0473	
10.80	4.3484	0.620	-0.0373	
10.80	4.7692	0.680	-0.0232	
10.80	4.9095	0.700		0.0164
10.80	5.0498	0.720	-0.0092	
10.80	6.0317	0.860	0.0558	
10.80	6.4876	0.925	0.0781	-0.2179
10.80	6.8032	0.970	0.0975	
10.80	6.9084	0.985	0.1823	-0.2105
10.80	7.0136	1.000	0.4251	
13.20	3.4289	0.400	-0.0178	0.0473
13.20	3.9432	0.460	-0.0315	
13.20	4.6290	0.540	-0.0350	0.0559
13.20	4.9719	0.580	-0.0336	
13.20	5.3148	0.620	-0.0290	0.0534
13.20	5.6576	0.660	-0.0098	
13.20	5.8291	0.680	0.0077	
13.20	6.0005	0.700	-0.0025	0.0226
13.20	6.1720	0.720	-0.0034	
13.20	6.3434	0.740	0.0178	
13.20	6.6863	0.780	0.0227	-0.0189
13.20	7.0292	0.820	0.0385	
13.20	7.3721	0.860	0.0511	-0.1621
13.20	7.7150	0.900	0.0776	-0.2238
13.20	7.9293	0.925	0.0968	-0.2408
13.20	8.1436	0.950	0.1213	-0.2568
13.20	8.3150	0.970	0.1663	-0.2683
13.20	8.4436	0.985	0.2732	-0.2515
13.20	8.5293	0.995	0.3386	0.1088
13.20	8.5722	1.000	0.4217	0.3843
15.00	5.2602	0.540	-0.0235	
15.00	6.0395	0.620	-0.0090	
15.00	7.0136	0.720	0.0150	
15.00	8.3774	0.860	0.0753	
15.00	9.7411	1.000	0.4203	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.3924
2	-0.3192
3	-0.3095
4	-0.2620

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.4234	
17.40	6.1018	0.540	-0.0224	0.0235
17.40	7.0058	0.620	-0.0043	0.0207
17.40	8.1358	0.720	0.0378	-0.0016
17.40	9.7177	0.860	0.0981	-0.2194
17.40	11.2997	1.000	0.4187	
19.80	6.9435	0.540	-0.0142	0.0087
19.80	7.9721	0.620	-0.0043	0.0033
19.80	9.2580	0.720	0.0340	-0.0256
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.0473	
0.54	4.6290	13.200	-0.0350	0.0559
0.54	5.2602	15.000	-0.0235	
0.54	6.1018	17.400	-0.0224	0.0235
0.54	6.9435	19.800	-0.0142	0.0087
0.62	4.3484	10.800	-0.0373	
0.62	5.3148	13.200	-0.0290	0.0534
0.62	6.0395	15.000	-0.0090	
0.62	7.0058	17.400	-0.0043	0.0207
0.62	7.9721	19.800	-0.0043	-0.0256
0.72	5.0498	10.800	-0.0092	
0.72	6.1720	13.200	-0.0034	
0.72	7.0136	15.000	0.0150	
0.72	8.1358	17.400	0.0378	-0.0016
0.72	9.2580	19.800	0.0340	-0.0256
0.86	6.0317	10.800	0.0558	
0.86	7.3721	13.200	0.0511	-0.1621
0.86	8.3774	15.000	0.0753	
0.86	9.7177	17.400	0.0981	-0.2194
1.00	7.0136	10.800	0.4251	
1.00	8.5722	13.200	0.4217	0.3843
1.00	9.7411	15.000	0.4203	
1.00	10.5204	16.200	0.4234	
1.00	11.2997	17.400	0.4187	
ETA	Y	X	CP-UP	CP-LOW

TABLE AII.- Continued

(b) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
6	129	1.62	9.030	0.0	455.6	1085.8	248.0	2.001

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1652
10.80	3.7873	0.540	-0.1716	
10.80	4.3484	0.620	-0.1876	
10.80	4.7692	0.680	-0.1836	
10.80	4.9095	0.700		0.1712
10.80	5.0498	0.720	-0.1821	
10.80	6.0317	0.860	-0.2204	
10.80	6.4876	0.925	-0.2209	0.1393
10.80	6.8032	0.970	-0.1902	
10.80	6.9084	0.985	-0.1024	0.2231
10.80	7.0136	1.000	0.2779	
13.20	3.4289	0.400	-0.1325	0.1864
13.20	3.9432	0.460	-0.1544	
13.20	4.6290	0.540	-0.1666	0.2026
13.20	4.9719	0.580	-0.1754	
13.20	5.3148	0.620	-0.1786	0.2028
13.20	5.6576	0.660	-0.1721	
13.20	5.8291	0.680	-0.1765	
13.20	6.0005	0.700	-0.1805	0.1870
13.20	6.1720	0.720	-0.1768	
13.20	6.3434	0.740	-0.1796	
13.20	6.6863	0.780	-0.2131	0.1753
13.20	7.0292	0.820	-0.2099	
13.20	7.3721	0.860	-0.2087	0.1502
13.20	7.7150	0.900	-0.2012	0.1538
13.20	7.9293	0.925	-0.1966	0.1617
13.20	8.1436	0.950	-0.1819	0.1778
13.20	8.3150	0.970	-0.1525	0.1934
13.20	8.4436	0.985	-0.0597	0.2453
13.20	8.5293	0.995	0.0254	0.4163
13.20	8.5722	1.000	0.3586	0.3984
15.00	5.2602	0.540	-0.1647	
15.00	6.0395	0.620	-0.1765	
15.00	7.0136	0.720	-0.1785	
15.00	8.3774	0.860	-0.1890	
15.00	9.7411	1.000	0.2946	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.3980
2	-0.3029
3	-0.3093
4	-0.2503

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.3191	
17.40	6.1018	0.540	-0.1618	0.1747
17.40	7.0058	0.620	-0.1725	0.1742
17.40	8.1358	0.720	-0.1713	0.1571
17.40	9.7177	0.860	-0.1680	0.1181
17.40	11.2997	1.000	0.3392	
19.80	6.9435	0.540	-0.1544	0.1553
19.80	7.9721	0.620	-0.1798	0.1553
19.80	9.2580	0.720	-0.1759	0.1343
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1716	
0.54	4.6290	13.200	-0.1666	0.2026
0.54	5.2602	15.000	-0.1647	
0.54	6.1018	17.400	-0.1618	0.1747
0.54	6.9435	19.800	-0.1544	0.1553
0.62	4.3484	10.800	-0.1876	
0.62	5.3148	13.200	-0.1786	0.2028
0.62	6.0395	15.000	-0.1765	
0.62	7.0058	17.400	-0.1725	0.1742
0.62	7.9721	19.800	-0.1798	0.1343
0.72	5.0498	10.800	-0.1821	
0.72	6.1720	13.200	-0.1768	
0.72	7.0136	15.000	-0.1785	
0.72	8.1358	17.400	-0.1713	0.1571
0.72	9.2580	19.800	-0.1759	0.1343
0.86	6.0317	10.800	-0.2204	
0.86	7.3721	13.200	-0.2087	0.1502
0.86	8.3774	15.000	-0.1890	
0.86	9.7177	17.400	-0.1680	0.1181
1.00	7.0136	10.800	0.2779	
1.00	8.5722	13.200	0.3586	0.3984
1.00	9.7411	15.000	0.2946	
1.00	10.5204	16.200	0.3191	
1.00	11.2997	17.400	0.3392	
ETA	Y	X	CP-UP	CP-LOW

TABLE AII.- Continued

(b) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
6	130	1.62	10.020	0.0	455.5	1085.7	248.0	2.001

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1882
10.80	3.7873	0.540	-0.1931	
10.80	4.3484	0.620	-0.2007	
10.80	4.7692	0.680	-0.2050	
10.80	4.9095	0.700		0.1941
10.80	5.0498	0.720	-0.2144	
10.80	6.0317	0.860	-0.2533	
10.80	6.4876	0.925	-0.2440	0.1779
10.80	6.8032	0.970	-0.2158	
10.80	6.9084	0.985	-0.1485	0.2740
10.80	7.0136	1.000	0.2453	
13.20	3.4289	0.400	-0.1475	0.2117
13.20	3.9432	0.460	-0.1641	
13.20	4.6290	0.540	-0.1874	0.2223
13.20	4.9719	0.580	-0.1977	
13.20	5.3148	0.620	-0.1992	0.2273
13.20	5.6576	0.660	-0.2019	
13.20	5.8291	0.680	-0.1990	
13.20	6.0005	0.700	-0.2143	0.2155
13.20	6.1720	0.720	-0.2247	
13.20	6.3434	0.740	-0.2475	
13.20	6.6863	0.780	-0.2426	0.1990
13.20	7.0292	0.820	-0.2420	
13.20	7.3721	0.860	-0.2415	0.1802
13.20	7.7150	0.900	-0.2344	0.1940
13.20	7.9293	0.925	-0.2242	0.2029
13.20	8.1436	0.950	-0.2068	0.2350
13.20	8.3150	0.970	-0.1922	0.2493
13.20	8.4436	0.985	-0.1050	0.3002
13.20	8.5293	0.995	-0.0122	0.4501
13.20	8.5722	1.000	0.3430	0.3878
15.00	5.2602	0.540	-0.1863	
15.00	6.0395	0.620	-0.1975	
15.00	7.0136	0.720	-0.2397	
15.00	8.3774	0.860	-0.2238	
15.00	9.7411	1.000	0.2650	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4141
2	-0.3122
3	-0.3136
4	-0.2546

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2901	
17.40	6.1018	0.540	-0.1822	0.1976
17.40	7.0058	0.620	-0.1972	0.1966
17.40	8.1358	0.720	-0.2255	0.1812
17.40	9.7177	0.860	-0.2006	0.1469
17.40	11.2997	1.000	0.3128	
19.80	6.9435	0.540	-0.1771	0.1806
19.80	7.9721	0.620	-0.2011	0.1791
19.80	9.2580	0.720	-0.2252	0.1567
X	Y	ETA	CP-UP	CP-LOW
ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1931	
0.54	4.6290	13.200	-0.1874	0.2223
0.54	5.2602	15.000	-0.1863	
0.54	6.1018	17.400	-0.1822	0.1976
0.54	6.9435	19.800	-0.1771	0.1806
0.62	4.3484	10.800	-0.2007	
0.62	5.3148	13.200	-0.1992	0.2273
0.62	6.0395	15.000	-0.1975	
0.62	7.0058	17.400	-0.1972	0.1966
0.62	7.9721	19.800	-0.2011	0.1567
0.72	5.0498	10.800	-0.2144	
0.72	6.1720	13.200	-0.2247	
0.72	7.0136	15.000	-0.2397	
0.72	8.1358	17.400	-0.2255	0.1812
0.72	9.2580	19.800	-0.2252	0.1567
0.86	6.0317	10.800	-0.2533	
0.86	7.3721	13.200	-0.2415	0.1802
0.86	8.3774	15.000	-0.2238	
0.86	9.7177	17.400	-0.2006	0.1469
1.00	7.0136	10.800	0.2453	
1.00	8.5722	13.200	0.3430	0.3878
1.00	9.7411	15.000	0.2650	
1.00	10.5204	16.200	0.2901	
1.00	11.2997	17.400	0.3128	
ETA	Y	X	CP-UP	CP-LOW

TABLE AII.- Continued

(b) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
6	131	1.62	11.020	0.0	455.4	1085.4	247.9	2.001

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.2113
10.80	3.7873	0.540	-0.2117	
10.80	4.3484	0.620	-0.2330	
10.80	4.7692	0.680	-0.2335	
10.80	4.9095	0.700		0.2196
10.80	5.0498	0.720	-0.2760	
10.80	6.0317	0.860	-0.2860	
10.80	6.4876	0.925	-0.2753	0.2107
10.80	6.8032	0.970	-0.2460	
10.80	6.9084	0.985	-0.1954	0.3236
10.80	7.0136	1.000	0.2085	
13.20	3.4289	0.400	-0.1612	0.2365
13.20	3.9432	0.460	-0.1830	
13.20	4.6290	0.540	-0.2048	0.2502
13.20	4.9719	0.580	-0.2179	
13.20	5.3148	0.620	-0.2309	0.2511
13.20	5.6576	0.660	-0.2392	
13.20	5.8291	0.680	-0.2516	
13.20	6.0005	0.700	-0.2688	0.2411
13.20	6.1720	0.720	-0.2725	
13.20	6.3434	0.740	-0.2805	
13.20	6.6863	0.780	-0.2698	0.2303
13.20	7.0292	0.820	-0.2678	
13.20	7.3721	0.860	-0.2643	0.2132
13.20	7.7150	0.900	-0.2592	0.2271
13.20	7.9293	0.925	-0.2496	0.2398
13.20	8.1436	0.950	-0.2416	0.2745
13.20	8.3150	0.970	-0.2294	0.2898
13.20	8.4436	0.985	-0.1632	0.3572
13.20	8.5293	0.995	-0.0576	0.4757
13.20	8.5722	1.000	0.3079	0.3700
15.00	5.2602	0.540	-0.2027	
15.00	6.0395	0.620	-0.2216	
15.00	7.0136	0.720	-0.2712	
15.00	8.3774	0.860	-0.2504	
15.00	9.7411	1.000	0.2389	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4108
2	-0.3213
3	-0.3282
4	-0.2547

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2623	
17.40	6.1018	0.540	-0.1962	0.2224
17.40	7.0058	0.620	-0.2270	0.2222
17.40	8.1358	0.720	-0.2473	0.2101
17.40	9.7177	0.860	-0.2256	0.1823
17.40	11.2997	1.000	0.3000	
19.80	6.9435	0.540	-0.1949	0.2055
19.80	7.9721	0.620	-0.2351	0.2046
19.80	9.2580	0.720	-0.2549	0.1850
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.2117	
0.54	4.6290	13.200	-0.2048	0.2502
0.54	5.2602	15.000	-0.2027	
0.54	6.1018	17.400	-0.1962	0.2224
0.54	6.9435	19.800	-0.1949	0.2055
0.62	4.3484	10.800	-0.2330	
0.62	5.3148	13.200	-0.2309	0.2511
0.62	6.0395	15.000	-0.2216	
0.62	7.0058	17.400	-0.2270	0.2222
0.62	7.9721	19.800	-0.2351	0.1850
0.72	5.0498	10.800	-0.2760	
0.72	6.1720	13.200	-0.2725	
0.72	7.0136	15.000	-0.2712	
0.72	8.1358	17.400	-0.2473	0.2101
0.72	9.2580	19.800	-0.2549	0.1850
0.86	6.0317	10.800	-0.2860	
0.86	7.3721	13.200	-0.2643	0.2132
0.86	8.3774	15.000	-0.2504	
0.86	9.7177	17.400	-0.2256	0.1823
1.00	7.0136	10.800	0.2085	
1.00	8.5722	13.200	0.3079	0.3700
1.00	9.7411	15.000	0.2389	
1.00	10.5204	16.200	0.2623	
1.00	11.2997	17.400	0.3000	
ETA	Y	X	CP-UP	CP-LOW

TABLE AII.- Continued

(b) Concluded

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
6	132	1.62	12.010	0.0	455.4	1085.4	247.9	2.001

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.2363
10.80	3.7873	0.540	-0.2286	
10.80	4.3484	0.620	-0.2744	
10.80	4.7692	0.680	-0.2773	
10.80	4.9095	0.700		0.2448
10.80	5.0498	0.720	-0.3157	
10.80	6.0317	0.860	-0.3180	
10.80	6.4876	0.925	-0.3081	0.2526
10.80	6.8032	0.970	-0.2773	
10.80	6.9084	0.985	-0.2331	0.3769
10.80	7.0136	1.000	0.1680	
13.20	3.4289	0.400	-0.1744	0.2616
13.20	3.9432	0.460	-0.1953	
13.20	4.6290	0.540	-0.2252	0.2748
13.20	4.9719	0.580	-0.2369	
13.20	5.3148	0.620	-0.2437	0.2746
13.20	5.6576	0.660	-0.2782	
13.20	5.8291	0.680	-0.3052	
13.20	6.0005	0.700	-0.3072	0.2631
13.20	6.1720	0.720	-0.3048	
13.20	6.3434	0.740	-0.3077	
13.20	6.6863	0.780	-0.2988	0.2583
13.20	7.0292	0.820	-0.2971	
13.20	7.3721	0.860	-0.2905	0.2453
13.20	7.7150	0.900	-0.2864	0.2673
13.20	7.9293	0.925	-0.2823	0.2748
13.20	8.1436	0.950	-0.2734	0.3162
13.20	8.3150	0.970	-0.2690	0.3422
13.20	8.4436	0.985	-0.1975	0.3991
13.20	8.5293	0.995	-0.0997	0.4965
13.20	8.5722	1.000	0.2856	0.3573
15.00	5.2602	0.540	-0.2212	
15.00	6.0395	0.620	-0.2570	
15.00	7.0136	0.720	-0.2979	
15.00	8.3774	0.860	-0.2744	
15.00	9.7411	1.000	0.2110	

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2365	
17.40	6.1018	0.540	-0.2150	0.2468
17.40	7.0058	0.620	-0.2840	0.2474
17.40	8.1358	0.720	-0.2748	0.2359
17.40	9.7177	0.860	-0.2565	0.2120
17.40	11.2997	1.000	0.2774	
19.80	6.9435	0.540	-0.2153	0.2287
19.80	7.9721	0.620	-0.2986	0.2280
19.80	9.2580	0.720	-0.2824	0.2089

BASE PRESSURES

PORT	CP
1	-0.4090
2	-0.3539
3	-0.3461
4	-0.2541

X	Y	ETA	CP-UP	CP-LOW
1.00	7.0136	10.800	0.1680	
1.00	8.5722	13.200	0.2856	0.3573
1.00	9.7411	15.000	0.2110	
1.00	10.5204	16.200	0.2365	
1.00	11.2997	17.400	0.2774	

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.2286	
0.54	4.6290	13.200	-0.2252	0.2748
0.54	5.2602	15.000	-0.2212	
0.54	6.1018	17.400	-0.2150	0.2468
0.54	6.9435	19.800	-0.2153	0.2287
0.62	4.3484	10.800	-0.2744	
0.62	5.3148	13.200	-0.2437	0.2746
0.62	6.0395	15.000	-0.2570	
0.62	7.0058	17.400	-0.2840	0.2474
0.62	7.9721	19.800	-0.2986	0.2089
0.72	5.0498	10.800	-0.3157	
0.72	6.1720	13.200	-0.3048	
0.72	7.0136	15.000	-0.2979	
0.72	8.1358	17.400	-0.2748	0.2359
0.72	9.2580	19.800	-0.2824	0.2089
0.86	6.0317	10.800	-0.3180	
0.86	7.3721	13.200	-0.2905	0.2453
0.86	8.3774	15.000	-0.2744	
0.86	9.7177	17.400	-0.2565	0.2120

ETA	Y	X	CP-UP	CP-LOW

TABLE AII.- Continued

(c) $\delta_c = -10°$

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
7	142	1.62	7.990	0.0	456.3	1087.4	248.4	2.004

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1466
10.80	3.7873	0.540	-0.1586	
10.80	4.3484	0.620	-0.1762	
10.80	4.7692	0.680	-0.1720	
10.80	4.9095	0.700		0.1552
10.80	5.0498	0.720	-0.1667	
10.80	6.0317	0.860	-0.1802	
10.80	6.4876	0.925	-0.1714	0.1087
10.80	6.8032	0.970	-0.1627	
10.80	6.9084	0.985	-0.0517	0.1654
10.80	7.0136	1.000	0.3249	
13.20	3.4289	0.400	-0.1081	0.1639
13.20	3.9432	0.460	-0.1281	
13.20	4.6290	0.540	-0.1531	0.1785
13.20	4.9719	0.580	-0.1623	
13.20	5.3148	0.620	-0.1683	0.1814
13.20	5.6576	0.660	-0.1597	
13.20	5.8291	0.680	-0.1630	
13.20	6.0005	0.700	-0.1572	0.1656
13.20	6.1720	0.720	-0.1473	
13.20	6.3434	0.740	-0.1745	
13.20	6.6863	0.780	-0.1816	0.1447
13.20	7.0292	0.820	-0.1745	
13.20	7.3721	0.860	-0.1603	0.1141
13.20	7.7150	0.900	-0.1566	0.1180
13.20	7.9293	0.925	-0.1468	0.1204
13.20	8.1436	0.950	-0.1507	0.1200
13.20	8.3150	0.970	-0.1322	0.1380
13.20	8.4436	0.985	0.0143	0.1782
13.20	8.5293	0.995	0.0820	0.3747
13.20	8.5722	1.000	0.3856	0.4079
15.00	5.2602	0.540	-0.1425	
15.00	6.0395	0.620	-0.1622	
15.00	7.0136	0.720	-0.1536	
15.00	8.3774	0.860	-0.1461	
15.00	9.7411	1.000	0.3291	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.3784
2	-0.3311
3	-0.3057
4	-0.2493

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.3450	
17.40	6.1018	0.540	-0.1378	0.1498
17.40	7.0058	0.620	-0.1530	0.1485
17.40	8.1358	0.720	-0.1473	0.1295
17.40	9.7177	0.860	-0.1233	0.0841
17.40	11.2997	1.000	0.3629	
19.80	6.9435	0.540	-0.1303	0.1322
19.80	7.9721	0.620	-0.1468	0.1320
19.80	9.2580	0.720	-0.1517	0.1075
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1586	
0.54	4.6290	13.200	-0.1531	0.1785
0.54	5.2602	15.000	-0.1425	
0.54	6.1018	17.400	-0.1378	0.1498
0.54	6.9435	19.800	-0.1303	0.1322
0.62	4.3484	10.800	-0.1762	
0.62	5.3148	13.200	-0.1683	0.1814
0.62	6.0395	15.000	-0.1622	
0.62	7.0058	17.400	-0.1530	0.1485
0.62	7.9721	19.800	-0.1468	0.1075
0.72	5.0498	10.800	-0.1667	
0.72	6.1720	13.200	-0.1473	
0.72	7.0136	15.000	-0.1536	
0.72	8.1358	17.400	-0.1473	0.1295
0.72	9.2580	19.800	-0.1517	0.1075
0.86	6.0317	10.800	-0.1802	
0.86	7.3721	13.200	-0.1603	0.1141
0.86	8.3774	15.000	-0.1461	
0.86	9.7177	17.400	-0.1233	0.0841
1.00	7.0136	10.800	0.3249	
1.00	8.5722	13.200	0.3856	0.4079
1.00	9.7411	15.000	0.3291	
1.00	10.5204	16.200	0.3450	
1.00	11.2997	17.400	0.3629	
ETA	Y	X	CP-UP	CP-LOW

TABLE AII.- Continued

(c) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
7	143	1.62	9.020	0.0	454.9	1084.3	247.6	1.999

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1685
10.80	3.7873	0.540	-0.1769	
10.80	4.3484	0.620	-0.2003	
10.80	4.7692	0.680	-0.1950	
10.80	4.9095	0.700		0.1768
10.80	5.0498	0.720	-0.2086	
10.80	6.0317	0.860	-0.2127	
10.80	6.4876	0.925	-0.2088	0.1496
10.80	6.8032	0.970	-0.1814	
10.80	6.9084	0.985	-0.0854	0.2304
10.80	7.0136	1.000	0.2897	
13.20	3.4289	0.400	-0.1251	0.1857
13.20	3.9432	0.460	-0.1427	
13.20	4.6290	0.540	-0.1704	0.2040
13.20	4.9719	0.580	-0.1849	
13.20	5.3148	0.620	-0.1935	0.2053
13.20	5.6576	0.660	-0.1869	
13.20	5.8291	0.680	-0.1937	
13.20	6.0005	0.700	-0.2028	0.1907
13.20	6.1720	0.720	-0.2133	
13.20	6.3434	0.740	-0.2126	
13.20	6.6863	0.780	-0.2129	0.1753
13.20	7.0292	0.820	-0.2035	
13.20	7.3721	0.860	-0.1949	0.1504
13.20	7.7150	0.900	-0.1939	0.1572
13.20	7.9293	0.925	-0.1863	0.1615
13.20	8.1436	0.950	-0.1786	0.1830
13.20	8.3150	0.970	-0.1550	0.1977
13.20	8.4436	0.985	-0.0436	0.2487
13.20	8.5293	0.995	0.0312	0.4182
13.20	8.5722	1.000	0.3600	0.4001
15.00	5.2602	0.540	-0.1647	
15.00	6.0395	0.620	-0.1876	
15.00	7.0136	0.720	-0.2104	
15.00	8.3774	0.860	-0.1795	
15.00	9.7411	1.000	0.2986	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.3993
2	-0.3046
3	-0.3116
4	-0.2519

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.3196	
17.40	6.1018	0.540	-0.1567	0.1762
17.40	7.0058	0.620	-0.1802	0.1746
17.40	8.1358	0.720	-0.1901	0.1563
17.40	9.7177	0.860	-0.1603	0.1143
17.40	11.2997	1.000	0.3456	
19.80	6.9435	0.540	-0.1496	0.1574
19.80	7.9721	0.620	-0.1797	0.1565
19.80	9.2580	0.720	-0.1926	0.1360
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1769	
0.54	4.6290	13.200	-0.1704	0.2040
0.54	5.2602	15.000	-0.1647	
0.54	6.1018	17.400	-0.1567	0.1762
0.54	6.9435	19.800	-0.1496	0.1574
0.62	4.3484	10.800	-0.2003	
0.62	5.3148	13.200	-0.1935	0.2053
0.62	6.0395	15.000	-0.1876	
0.62	7.0058	17.400	-0.1802	0.1746
0.62	7.9721	19.800	-0.1797	0.1360
0.72	5.0498	10.800	-0.2086	
0.72	6.1720	13.200	-0.2133	
0.72	7.0136	15.000	-0.2104	
0.72	8.1358	17.400	-0.1901	0.1563
0.72	9.2580	19.800	-0.1926	0.1360
0.86	6.0317	10.800	-0.2127	
0.86	7.3721	13.200	-0.1949	0.1504
0.86	8.3774	15.000	-0.1795	
0.86	9.7177	17.400	-0.1603	0.1143
1.00	7.0136	10.800	0.2897	
1.00	8.5722	13.200	0.3600	0.4001
1.00	9.7411	15.000	0.2986	
1.00	10.5204	16.200	0.3196	
1.00	11.2997	17.400	0.3456	
ETA	Y	X	CP-UP	CP-LOW

TABLE AII.- Continued

(c) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
7	144	1.62	10.010	0.0	455.8	1086.3	248.1	2.002

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1904
10.80	3.7873	0.540	-0.1964	
10.80	4.3484	0.620	-0.2266	
10.80	4.7692	0.680	-0.2264	
10.80	4.9095	0.700		0.1994
10.80	5.0498	0.720	-0.2551	
10.80	6.0317	0.860	-0.2460	
10.80	6.4876	0.925	-0.2376	0.1850
10.80	6.8032	0.970	-0.2061	
10.80	6.9084	0.985	-0.1359	0.2842
10.80	7.0136	1.000	0.2539	
13.20	3.4289	0.400	-0.1396	0.2099
13.20	3.9432	0.460	-0.1691	
13.20	4.6290	0.540	-0.1900	0.2262
13.20	4.9719	0.580	-0.2076	
13.20	5.3148	0.620	-0.2139	0.2278
13.20	5.6576	0.660	-0.2257	
13.20	5.8291	0.680	-0.2342	
13.20	6.0005	0.700	-0.2481	0.2158
13.20	6.1720	0.720	-0.2511	
13.20	6.3434	0.740	-0.2469	
13.20	6.6863	0.780	-0.2401	0.2013
13.20	7.0292	0.820	-0.2340	
13.20	7.3721	0.860	-0.2247	0.1833
13.20	7.7150	0.900	-0.2259	0.1913
13.20	7.9293	0.925	-0.2182	0.2041
13.20	8.1436	0.950	-0.2002	0.2334
13.20	8.3150	0.970	-0.1849	0.2465
13.20	8.4436	0.985	-0.1007	0.3051
13.20	8.5293	0.995	-0.0056	0.4511
13.20	8.5722	1.000	0.3411	0.3934
15.00	5.2602	0.540	-0.1859	
15.00	6.0395	0.620	-0.2139	
15.00	7.0136	0.720	-0.2433	
15.00	8.3774	0.860	-0.2180	
15.00	9.7411	1.000	0.2695	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4123
2	-0.3228
3	-0.3153
4	-0.2544

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2925	
17.40	6.1018	0.540	-0.1744	0.1986
17.40	7.0058	0.620	-0.2160	0.1956
17.40	8.1358	0.720	-0.2209	0.1807
17.40	9.7177	0.860	-0.1934	0.1458
17.40	11.2997	1.000	0.3205	
19.80	6.9435	0.540	-0.1698	0.1805
19.80	7.9721	0.620	-0.2167	0.1801
19.80	9.2580	0.720	-0.2219	0.1582
X	Y	ETA	CP-UP	CP-LOW
ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1964	
0.54	4.6290	13.200	-0.1900	0.2262
0.54	5.2602	15.000	-0.1859	
0.54	6.1018	17.400	-0.1744	0.1986
0.54	6.9435	19.800	-0.1698	0.1805
0.62	4.3484	10.800	-0.2266	
0.62	5.3148	13.200	-0.2139	0.2278
0.62	6.0395	15.000	-0.2139	
0.62	7.0058	17.400	-0.2160	0.1956
0.62	7.9721	19.800	-0.2167	0.1582
0.72	5.0498	10.800	-0.2551	
0.72	6.1720	13.200	-0.2511	
0.72	7.0136	15.000	-0.2433	
0.72	8.1358	17.400	-0.2209	0.1807
0.72	9.2580	19.800	-0.2219	0.1582
0.86	6.0317	10.800	-0.2460	
0.86	7.3721	13.200	-0.2247	0.1833
0.86	8.3774	15.000	-0.2180	
0.86	9.7177	17.400	-0.1934	0.1458
1.00	7.0136	10.800	0.2539	
1.00	8.5722	13.200	0.3411	0.3934
1.00	9.7411	15.000	0.2695	
1.00	10.5204	16.200	0.2925	
1.00	11.2997	17.400	0.3205	
ETA	Y	X	CP-UP	CP-LOW

TABLE AII.- Continued

(c) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
7	145	1.62	11.030	0.0	455.6	1085.9	248.0	2.001

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.2166
10.80	3.7873	0.540	-0.2188	
10.80	4.3484	0.620	-0.2399	
10.80	4.7692	0.680	-0.2797	
10.80	4.9095	0.700		0.2259
10.80	5.0498	0.720	-0.2962	
10.80	6.0317	0.860	-0.2737	
10.80	6.4876	0.925	-0.2648	0.2228
10.80	6.8032	0.970	-0.2428	
10.80	6.9084	0.985	-0.1737	0.3352
10.80	7.0136	1.000	0.2195	
13.20	3.4289	0.400	-0.1564	0.2360
13.20	3.9432	0.460	-0.1792	
13.20	4.6290	0.540	-0.2113	0.2487
13.20	4.9719	0.580	-0.2323	
13.20	5.3148	0.620	-0.2328	0.2503
13.20	5.6576	0.660	-0.2756	
13.20	5.8291	0.680	-0.2856	
13.20	6.0005	0.700	-0.2776	0.2369
13.20	6.1720	0.720	-0.2778	
13.20	6.3434	0.740	-0.2717	
13.20	6.6863	0.780	-0.2696	0.2318
13.20	7.0292	0.820	-0.2622	
13.20	7.3721	0.860	-0.2596	0.2165
13.20	7.7150	0.900	-0.2527	0.2314
13.20	7.9293	0.925	-0.2469	0.2410
13.20	8.1436	0.950	-0.2355	0.2807
13.20	8.3150	0.970	-0.2274	0.2947
13.20	8.4436	0.985	-0.1539	0.3574
13.20	8.5293	0.995	-0.0534	0.4820
13.20	8.5722	1.000	0.3150	0.3807
15.00	5.2602	0.540	-0.2039	
15.00	6.0395	0.620	-0.2561	
15.00	7.0136	0.720	-0.2667	
15.00	8.3774	0.860	-0.2418	
15.00	9.7411	1.000	0.2371	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4094
2	-0.3222
3	-0.3304
4	-0.2523

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2660	
17.40	6.1018	0.540	-0.1948	0.2253
17.40	7.0058	0.620	-0.2660	0.2231
17.40	8.1358	0.720	-0.2489	0.2086
17.40	9.7177	0.860	-0.2223	0.1771
17.40	11.2997	1.000	0.3001	
19.80	6.9435	0.540	-0.1869	0.2063
19.80	7.9721	0.620	-0.2782	0.2034
19.80	9.2580	0.720	-0.2521	0.1858
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.2188	
0.54	4.6290	13.200	-0.2113	0.2487
0.54	5.2602	15.000	-0.2039	
0.54	6.1018	17.400	-0.1948	0.2253
0.54	6.9435	19.800	-0.1869	0.2063
0.62	4.3484	10.800	-0.2399	
0.62	5.3148	13.200	-0.2328	0.2503
0.62	6.0395	15.000	-0.2561	
0.62	7.0058	17.400	-0.2660	0.2231
0.62	7.9721	19.800	-0.2782	0.1858
0.72	5.0498	10.800	-0.2962	
0.72	6.1720	13.200	-0.2778	
0.72	7.0136	15.000	-0.2667	
0.72	8.1358	17.400	-0.2489	0.2086
0.72	9.2580	19.800	-0.2521	0.1858
0.86	6.0317	10.800	-0.2737	
0.86	7.3721	13.200	-0.2596	0.2165
0.86	8.3774	15.000	-0.2418	
0.86	9.7177	17.400	-0.2223	0.1771
1.00	7.0136	10.800	0.2195	
1.00	8.5722	13.200	0.3150	0.3807
1.00	9.7411	15.000	0.2371	
1.00	10.5204	16.200	0.2660	
1.00	11.2997	17.400	0.3001	
ETA	Y	X	CP-UP	CP-LOW

TABLE AII.- Concluded

(c) Concluded

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
7	146	1.62	11.990	0.0	455.7	1086.2	248.1	2.002

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.2396
10.80	3.7873	0.540	-0.2410	
10.80	4.3484	0.620	-0.3164	
10.80	4.7692	0.680	-0.3207	
10.80	4.9095	0.700		0.2508
10.80	5.0498	0.720	-0.3186	
10.80	6.0317	0.860	-0.3072	
10.80	6.4876	0.925	-0.2992	0.2589
10.80	6.8032	0.970	-0.2714	
10.80	6.9084	0.985	-0.2059	0.3860
10.80	7.0136	1.000	0.1758	
13.20	3.4289	0.400	-0.1670	0.2615
13.20	3.9432	0.460	-0.2016	
13.20	4.6290	0.540	-0.2296	0.2724
13.20	4.9719	0.580	-0.2606	
13.20	5.3148	0.620	-0.2654	0.2750
13.20	5.6576	0.660	-0.3159	
13.20	5.8291	0.680	-0.3155	
13.20	6.0005	0.700	-0.3006	0.2667
13.20	6.1720	0.720	-0.3003	
13.20	6.3434	0.740	-0.2999	
13.20	6.6863	0.780	-0.2927	0.2582
13.20	7.0292	0.820	-0.2884	
13.20	7.3721	0.860	-0.2877	0.2467
13.20	7.7150	0.900	-0.2775	0.2695
13.20	7.9293	0.925	-0.2734	0.2809
13.20	8.1436	0.950	-0.2597	0.3181
13.20	8.3150	0.970	-0.2583	0.3373
13.20	8.4436	0.985	-0.1900	0.4027
13.20	8.5293	0.995	-0.0923	0.5006
13.20	8.5722	1.000	0.2933	0.3638
15.00	5.2602	0.540	-0.2272	
15.00	6.0395	0.620	-0.3117	
15.00	7.0136	0.720	-0.2922	
15.00	8.3774	0.860	-0.2681	
15.00	9.7411	1.000	0.2097	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4075
2	-0.3536
3	-0.3471
4	-0.2529

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2434	
17.40	6.1018	0.540	-0.2166	0.2498
17.40	7.0058	0.620	-0.3058	0.2482
17.40	8.1358	0.720	-0.2689	0.2369
17.40	9.7177	0.860	-0.2540	0.2082
17.40	11.2997	1.000	0.2796	
19.80	6.9435	0.540	-0.2151	0.2290
19.80	7.9721	0.620	-0.3058	0.2287
19.80	9.2580	0.720	-0.2755	0.2090
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.2410	
0.54	4.6290	13.200	-0.2296	0.2724
0.54	5.2602	15.000	-0.2272	
0.54	6.1018	17.400	-0.2166	0.2498
0.54	6.9435	19.800	-0.2151	0.2290
0.62	4.3484	10.800	-0.3164	
0.62	5.3148	13.200	-0.2654	0.2750
0.62	6.0395	15.000	-0.3117	
0.62	7.0058	17.400	-0.3058	0.2482
0.62	7.9721	19.800	-0.3058	0.2090
0.72	5.0498	10.800	-0.3186	
0.72	6.1720	13.200	-0.3003	
0.72	7.0136	15.000	-0.2922	
0.72	8.1358	17.400	-0.2689	0.2369
0.72	9.2580	19.800	-0.2755	0.2090
0.86	6.0317	10.800	-0.3072	
0.86	7.3721	13.200	-0.2877	0.2467
0.86	8.3774	15.000	-0.2681	
0.86	9.7177	17.400	-0.2540	0.2082
1.00	7.0136	10.800	0.1758	
1.00	8.5722	13.200	0.2933	0.3638
1.00	9.7411	15.000	0.2097	
1.00	10.5204	16.200	0.2434	
1.00	11.2997	17.400	0.2796	
ETA	Y	X	CP-UP	CP-LOW

TABLE AIII.- FLAT WING-BODY CONFIGURATION WITH NOSE 1

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
14	333	1.62	1.990	0.0	455.1	1084.7	247.7	1.999

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.0245
10.80	3.7873	0.540	-0.0424	
10.80	4.3484	0.620	-0.0388	
10.80	4.7692	0.680	-0.0450	
10.80	4.9095	0.700		0.0429
10.80	5.0498	0.720	-0.0560	
10.80	6.0317	0.860	-0.1436	
10.80	6.4876	0.925	-0.1738	0.0404
10.80	6.8032	0.970	-0.1300	
10.80	6.9084	0.985	-0.1236	0.1325
10.80	7.0136	1.000	0.2987	
13.20	3.4289	0.400	-0.0214	0.0525
13.20	3.9432	0.460	-0.0214	
13.20	4.6290	0.540	-0.0195	0.0606
13.20	4.9719	0.580	-0.0217	
13.20	5.3148	0.620	-0.0239	0.0621
13.20	5.6576	0.660	-0.0312	
13.20	5.8291	0.680	-0.0366	
13.20	6.0005	0.700	-0.0402	0.0607
13.20	6.1720	0.720	-0.0450	
13.20	6.3434	0.740	-0.0515	
13.20	6.6863	0.780	-0.0696	0.0553
13.20	7.0292	0.820	-0.1034	
13.20	7.3721	0.860	-0.1464	0.0458
13.20	7.7150	0.900	-0.1708	0.0515
13.20	7.9293	0.925	-0.1713	0.0584
13.20	8.1436	0.950	-0.1775	0.0773
13.20	8.3150	0.970	-0.1244	0.0945
13.20	8.4436	0.985	-0.1222	0.1395
13.20	8.5293	0.995	0.0439	0.2148
13.20	8.5722	1.000	0.3544	0.3720
15.00	5.2602	0.540	-0.0082	
15.00	6.0395	0.620	-0.0138	
15.00	7.0136	0.720	-0.0329	
15.00	8.3774	0.860	-0.1376	
15.00	9.7411	1.000	0.3458	

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.3674	
17.40	6.1018	0.540	-0.0318	0.0578
17.40	7.0058	0.620	-0.0164	0.0639
17.40	8.1358	0.720	-0.0272	0.0583
17.40	9.7177	0.860	-0.1294	0.0432
17.40	11.2997	1.000	0.3378	
19.80	6.9435	0.540	-0.0670	0.0518
19.80	7.9721	0.620	-0.0323	0.0623
19.80	9.2580	0.720	-0.0476	0.0528

BASE PRESSURES

PORT	CP
1	-0.4004
2	-0.2750
3	-0.2826
4	-0.2388

X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.0424	
0.54	4.6290	13.200	-0.0195	0.0606
0.54	5.2602	15.000	-0.0082	
0.54	6.1018	17.400	-0.0318	0.0578
0.54	6.9435	19.800	-0.0670	0.0518
0.62	4.3484	10.800	-0.0388	
0.62	5.3148	13.200	-0.0239	0.0621
0.62	6.0395	15.000	-0.0138	
0.62	7.0058	17.400	-0.0164	0.0639
0.62	7.9721	19.800	-0.0323	0.0528
0.72	5.0498	10.800	-0.0560	
0.72	6.1720	13.200	-0.0450	
0.72	7.0136	15.000	-0.0329	
0.72	8.1358	17.400	-0.0272	0.0583
0.72	9.2580	19.800	-0.0476	0.0528
0.86	6.0317	10.800	-0.1436	
0.86	7.3721	13.200	-0.1464	0.0458
0.86	8.3774	15.000	-0.1376	
0.86	9.7177	17.400	-0.1294	0.0432
1.00	7.0136	10.800	0.2987	
1.00	8.5722	13.200	0.3544	0.3720
1.00	9.7411	15.000	0.3458	
1.00	10.5204	16.200	0.3674	
1.00	11.2997	17.400	0.3378	

ETA	Y	X	CP-UP	CP-LOW

TABLE AIII.- Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
14	334	1.62	4.000	0.0	454.3	1082.8	247.3	1.996

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.0706
10.80	3.7873	0.540	-0.0786	
10.80	4.3484	0.620	-0.0792	
10.80	4.7692	0.680	-0.0866	
10.80	4.9095	0.700		0.0982
10.80	5.0498	0.720	-0.1093	
10.80	6.0317	0.860	-0.2499	
10.80	6.4876	0.925	-0.2544	0.1287
10.80	6.8032	0.970	-0.2439	
10.80	6.9084	0.985	-0.2391	0.2390
10.80	7.0136	1.000	0.2414	
13.20	3.4289	0.400	-0.0608	0.0834
13.20	3.9432	0.460	-0.0583	
13.20	4.6290	0.540	-0.0614	0.0961
13.20	4.9719	0.580	-0.0603	
13.20	5.3148	0.620	-0.0631	0.0999
13.20	5.6576	0.660	-0.0759	
13.20	5.8291	0.680	-0.0809	
13.20	6.0005	0.700	-0.0810	0.1054
13.20	6.1720	0.720	-0.0866	
13.20	6.3434	0.740	-0.1184	
13.20	6.6863	0.780	-0.1734	0.1106
13.20	7.0292	0.820	-0.2444	
13.20	7.3721	0.860	-0.2509	0.1142
13.20	7.7150	0.900	-0.2450	0.1309
13.20	7.9293	0.925	-0.2474	0.1494
13.20	8.1436	0.950	-0.2633	0.1703
13.20	8.3150	0.970	-0.2424	0.2015
13.20	8.4436	0.985	-0.2321	0.2536
13.20	8.5293	0.995	-0.0573	0.3272
13.20	8.5722	1.000	0.3238	0.3824
15.00	5.2602	0.540	-0.0544	
15.00	6.0395	0.620	-0.0621	
15.00	7.0136	0.720	-0.0927	
15.00	8.3774	0.860	-0.2473	
15.00	9.7411	1.000	0.2834	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4272
2	-0.3256
3	-0.2833
4	-0.2372

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.3026	
17.40	6.1018	0.540	-0.0619	0.0893
17.40	7.0058	0.620	-0.0620	0.0967
17.40	8.1358	0.720	-0.0900	0.0965
17.40	9.7177	0.860	-0.2520	0.1037
17.40	11.2997	1.000	0.2689	
19.80	6.9435	0.540	-0.1025	0.0809
19.80	7.9721	0.620	-0.0648	0.0918
19.80	9.2580	0.720	-0.0971	0.0883
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.0786	
0.54	4.6290	13.200	-0.0614	0.0961
0.54	5.2602	15.000	-0.0544	
0.54	6.1018	17.400	-0.0619	0.0893
0.54	6.9435	19.800	-0.1025	0.0809
0.62	4.3484	10.800	-0.0792	
0.62	5.3148	13.200	-0.0631	0.0999
0.62	6.0395	15.000	-0.0621	
0.62	7.0058	17.400	-0.0620	0.0967
0.62	7.9721	19.800	-0.0648	0.0883
0.72	5.0498	10.800	-0.1093	
0.72	6.1720	13.200	-0.0866	
0.72	7.0136	15.000	-0.0927	
0.72	8.1358	17.400	-0.0900	0.0965
0.72	9.2580	19.800	-0.0971	0.0883
0.86	6.0317	10.800	-0.2499	
0.86	7.3721	13.200	-0.2509	0.1142
0.86	8.3774	15.000	-0.2473	
0.86	9.7177	17.400	-0.2520	0.1037
1.00	7.0136	10.800	0.2414	
1.00	8.5722	13.200	0.3238	0.3824
1.00	9.7411	15.000	0.2834	
1.00	10.5204	16.200	0.3026	
1.00	11.2997	17.400	0.2689	
ETA	Y	X	CP-UP	CP-LOW

TABLE AIII.- Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
14	336	1.62	6.030	0.0	454.8	1084.0	247.6	1.998

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1127
10.80	3.7873	0.540	-0.1102	
10.80	4.3484	0.620	-0.1301	
10.80	4.7692	0.680	-0.1327	
10.80	4.9095	0.700		0.1490
10.80	5.0498	0.720	-0.2521	
10.80	6.0317	0.860	-0.3187	
10.80	6.4876	0.925	-0.3270	0.2030
10.80	6.8032	0.970	-0.3261	
10.80	6.9084	0.985	-0.3141	0.3214
10.80	7.0136	1.000	0.1830	
13.20	3.4289	0.400	-0.0876	0.1169
13.20	3.9432	0.460	-0.0859	
13.20	4.6290	0.540	-0.1031	0.1315
13.20	4.9719	0.580	-0.0914	
13.20	5.3148	0.620	-0.1067	0.1402
13.20	5.6576	0.660	-0.1476	
13.20	5.8291	0.680	-0.1659	
13.20	6.0005	0.700	-0.1986	0.1480
13.20	6.1720	0.720	-0.1961	
13.20	6.3434	0.740	-0.2428	
13.20	6.6863	0.780	-0.2951	0.1566
13.20	7.0292	0.820	-0.3169	
13.20	7.3721	0.860	-0.3239	0.1660
13.20	7.7150	0.900	-0.3212	0.1874
13.20	7.9293	0.925	-0.3204	0.2066
13.20	8.1436	0.950	-0.3343	0.2284
13.20	8.3150	0.970	-0.3262	0.2653
13.20	8.4436	0.985	-0.3063	0.3244
13.20	8.5293	0.995	-0.1396	0.3891
13.20	8.5722	1.000	0.2870	0.3490
15.00	5.2602	0.540	-0.0870	
15.00	6.0395	0.620	-0.1165	
15.00	7.0136	0.720	-0.1791	
15.00	8.3774	0.860	-0.3171	
15.00	9.7411	1.000	0.2264	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4326
2	-0.3524
3	-0.2978
4	-0.2386

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2645	
17.40	6.1018	0.540	-0.0952	0.1339
17.40	7.0058	0.620	-0.0985	0.1405
17.40	8.1358	0.720	-0.1847	0.1431
17.40	9.7177	0.860	-0.3187	0.1621
17.40	11.2997	1.000	0.2164	
19.80	6.9435	0.540	-0.1272	0.1281
19.80	7.9721	0.620	-0.1020	0.1403
19.80	9.2580	0.720	-0.1909	0.1396
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1102	
0.54	4.6290	13.200	-0.1031	0.1315
0.54	5.2602	15.000	-0.0870	
0.54	6.1018	17.400	-0.0952	0.1339
0.54	6.9435	19.800	-0.1272	0.1281
0.62	4.3484	10.800	-0.1301	
0.62	5.3148	13.200	-0.1067	0.1402
0.62	6.0395	15.000	-0.1165	
0.62	7.0058	17.400	-0.0985	0.1405
0.62	7.9721	19.800	-0.1020	0.1396
0.72	5.0498	10.800	-0.2521	
0.72	6.1720	13.200	-0.1961	
0.72	7.0136	15.000	-0.1791	
0.72	8.1358	17.400	-0.1847	0.1431
0.72	9.2580	19.800	-0.1909	0.1396
0.86	6.0317	10.800	-0.3187	
0.86	7.3721	13.200	-0.3239	0.1660
0.86	8.3774	15.000	-0.3171	
0.86	9.7177	17.400	-0.3187	0.1621
1.00	7.0136	10.800	0.1830	
1.00	8.5722	13.200	0.2870	0.3490
1.00	9.7411	15.000	0.2264	
1.00	10.5204	16.200	0.2645	
1.00	11.2997	17.400	0.2164	
ETA	Y	X	CP-UP	CP-LOW

TABLE AIII.- Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
14	339	1.62	7.030	0.0	456.0	1086.8	248.2	2.003

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1267
10.80	3.7873	0.540	-0.1303	
10.80	4.3484	0.620	-0.1843	
10.80	4.7692	0.680	-0.1845	
10.80	4.9095	0.700		0.1612
10.80	5.0498	0.720	-0.2991	
10.80	6.0317	0.860	-0.3384	
10.80	6.4876	0.925	-0.3562	0.2271
10.80	6.8032	0.970	-0.3630	
10.80	6.9084	0.985	-0.3508	0.3372
10.80	7.0136	1.000	0.1568	
13.20	3.4289	0.400	-0.0999	0.1423
13.20	3.9432	0.460	-0.0997	
13.20	4.6290	0.540	-0.1179	0.1572
13.20	4.9719	0.580	-0.1031	
13.20	5.3148	0.620	-0.1183	0.1627
13.20	5.6576	0.660	-0.2065	
13.20	5.8291	0.680	-0.2708	
13.20	6.0005	0.700	-0.2572	0.1717
13.20	6.1720	0.720	-0.2611	
13.20	6.3434	0.740	-0.2898	
13.20	6.6863	0.780	-0.3160	0.1819
13.20	7.0292	0.820	-0.3366	
13.20	7.3721	0.860	-0.3467	0.1930
13.20	7.7150	0.900	-0.3504	0.2196
13.20	7.9293	0.925	-0.3542	0.2359
13.20	8.1436	0.950	-0.3690	0.2572
13.20	8.3150	0.970	-0.3568	0.2954
13.20	8.4436	0.985	-0.3439	0.3507
13.20	8.5293	0.995	-0.1806	0.4055
13.20	8.5722	1.000	0.2528	0.3185
15.00	5.2602	0.540	-0.0926	
15.00	6.0395	0.620	-0.1804	
15.00	7.0136	0.720	-0.2771	
15.00	8.3774	0.860	-0.3443	
15.00	9.7411	1.000	0.2028	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4412
2	-0.3671
3	-0.3130
4	-0.2444

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2468	
17.40	6.1018	0.540	-0.1153	0.1609
17.40	7.0058	0.620	-0.1105	0.1664
17.40	8.1358	0.720	-0.2765	0.1718
17.40	9.7177	0.860	-0.3441	0.1958
17.40	11.2997	1.000	0.1876	
19.80	6.9435	0.540	-0.1355	0.1555
19.80	7.9721	0.620	-0.1193	0.1674
19.80	9.2580	0.720	-0.2541	0.1680
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1303	
0.54	4.6290	13.200	-0.1179	0.1572
0.54	5.2602	15.000	-0.0926	
0.54	6.1018	17.400	-0.1153	0.1609
0.54	6.9435	19.800	-0.1355	0.1555
0.62	4.3484	10.800	-0.1843	
0.62	5.3148	13.200	-0.1183	0.1627
0.62	6.0395	15.000	-0.1804	
0.62	7.0058	17.400	-0.1105	0.1664
0.62	7.9721	19.800	-0.1193	0.1680
0.72	5.0498	10.800	-0.2991	
0.72	6.1720	13.200	-0.2611	
0.72	7.0136	15.000	-0.2771	
0.72	8.1358	17.400	-0.2765	0.1718
0.72	9.2580	19.800	-0.2541	0.1680
0.86	6.0317	10.800	-0.3384	
0.86	7.3721	13.200	-0.3467	0.1930
0.86	8.3774	15.000	-0.3443	
0.86	9.7177	17.400	-0.3441	0.1958
1.00	7.0136	10.800	0.1568	
1.00	8.5722	13.200	0.2528	0.3185
1.00	9.7411	15.000	0.2028	
1.00	10.5204	16.200	0.2468	
1.00	11.2997	17.400	0.1876	
ETA	Y	X	CP-UP	CP-LOW

TABLE AIII.- Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
14	341	1.62	8.020	0.0	455.7	1086.2	248.1	2.002

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1449
10.80	3.7873	0.540	-0.1635	
10.80	4.3484	0.620	-0.2236	
10.80	4.7692	0.680	-0.2590	
10.80	4.9095	0.700		0.1812
10.80	5.0498	0.720	-0.3282	
10.80	6.0317	0.860	-0.3584	
10.80	6.4876	0.925	-0.3812	0.2556
10.80	6.8032	0.970	-0.3891	
10.80	6.9084	0.985	-0.3815	0.3572
10.80	7.0136	1.000	0.1249	
13.20	3.4289	0.400	-0.1059	0.1657
13.20	3.9432	0.460	-0.1138	
13.20	4.6290	0.540	-0.1405	0.1831
13.20	4.9719	0.580	-0.1287	
13.20	5.3148	0.620	-0.1630	0.1869
13.20	5.6576	0.660	-0.2710	
13.20	5.8291	0.680	-0.2932	
13.20	6.0005	0.700	-0.2890	0.1968
13.20	6.1720	0.720	-0.3198	
13.20	6.3434	0.740	-0.3170	
13.20	6.6863	0.780	-0.3434	0.2135
13.20	7.0292	0.820	-0.3519	
13.20	7.3721	0.860	-0.3637	0.2252
13.20	7.7150	0.900	-0.3757	0.2498
13.20	7.9293	0.925	-0.3800	0.2673
13.20	8.1436	0.950	-0.3928	0.2905
13.20	8.3150	0.970	-0.3848	0.3233
13.20	8.4436	0.985	-0.3730	0.3811
13.20	8.5293	0.995	-0.2089	0.4234
13.20	8.5722	1.000	0.2306	0.2974
15.00	5.2602	0.540	-0.1075	
15.00	6.0395	0.620	-0.2249	
15.00	7.0136	0.720	-0.3187	
15.00	8.3774	0.860	-0.3602	
15.00	9.7411	1.000	0.1750	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4435
2	-0.3838
3	-0.3198
4	-0.2517

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2242	
17.40	6.1018	0.540	-0.1415	0.1861
17.40	7.0058	0.620	-0.1369	0.1936
17.40	8.1358	0.720	-0.3207	0.1992
17.40	9.7177	0.860	-0.3614	0.2254
17.40	11.2997	1.000	0.1518	
19.80	6.9435	0.540	-0.1548	0.1791
19.80	7.9721	0.620	-0.1746	0.1925
19.80	9.2580	0.720	-0.2761	0.1951
X	Y	ETA	CP-UP	CP-LOW
ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1635	
0.54	4.6290	13.200	-0.1405	0.1831
0.54	5.2602	15.000	-0.1075	
0.54	6.1018	17.400	-0.1415	0.1861
0.54	6.9435	19.800	-0.1548	0.1791
0.62	4.3484	10.800	-0.2236	
0.62	5.3148	13.200	-0.1630	0.1869
0.62	6.0395	15.000	-0.2249	
0.62	7.0058	17.400	-0.1369	0.1936
0.62	7.9721	19.800	-0.1746	0.1951
0.72	5.0498	10.800	-0.3282	
0.72	6.1720	13.200	-0.3198	
0.72	7.0136	15.000	-0.3187	
0.72	8.1358	17.400	-0.3207	0.1992
0.72	9.2580	19.800	-0.2761	0.1951
0.86	6.0317	10.800	-0.3584	
0.86	7.3721	13.200	-0.3637	0.2252
0.86	8.3774	15.000	-0.3602	
0.86	9.7177	17.400	-0.3614	0.2254
1.00	7.0136	10.800	0.1249	
1.00	8.5722	13.200	0.2306	0.2974
1.00	9.7411	15.000	0.1750	
1.00	10.5204	16.200	0.2242	
1.00	11.2997	17.400	0.1518	
ETA	Y	X	CP-UP	CP-LOW

TABLE AIII.- Concluded

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
14	345	1.62	9.030	0.0	456.1	1086.9	248.2	2.003

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1754
10.80	3.7873	0.540	-0.2179	
10.80	4.3484	0.620	-0.2587	
10.80	4.7692	0.680	-0.2894	
10.80	4.9095	0.700		0.2083
10.80	5.0498	0.720	-0.3519	
10.80	6.0317	0.860	-0.3772	
10.80	6.4876	0.925	-0.4035	0.2876
10.80	6.8032	0.970	-0.4156	
10.80	6.9084	0.985	-0.4022	0.3830
10.80	7.0136	1.000	0.0968	
13.20	3.4289	0.400	-0.1158	0.1924
13.20	3.9432	0.460	-0.1263	
13.20	4.6290	0.540	-0.1639	0.2091
13.20	4.9719	0.580	-0.1601	
13.20	5.3148	0.620	-0.2093	0.2167
13.20	5.6576	0.660	-0.3077	
13.20	5.8291	0.680	-0.3287	
13.20	6.0005	0.700	-0.3195	0.2270
13.20	6.1720	0.720	-0.3516	
13.20	6.3434	0.740	-0.3483	
13.20	6.6863	0.780	-0.3667	0.2446
13.20	7.0292	0.820	-0.3701	
13.20	7.3721	0.860	-0.3788	0.2598
13.20	7.7150	0.900	-0.3907	0.2872
13.20	7.9293	0.925	-0.4018	0.3022
13.20	8.1436	0.950	-0.4189	0.3283
13.20	8.3150	0.970	-0.4121	0.3632
13.20	8.4436	0.985	-0.3956	0.4106
13.20	8.5293	0.995	-0.2375	0.4451
13.20	8.5722	1.000	0.2001	0.2707
15.00	5.2602	0.540	-0.1357	
15.00	6.0395	0.620	-0.2660	
15.00	7.0136	0.720	-0.3442	
15.00	8.3774	0.860	-0.3751	
15.00	9.7411	1.000	0.1401	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4378
2	-0.3873
3	-0.3335
4	-0.2626

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.1909	
17.40	6.1018	0.540	-0.1875	0.2038
17.40	7.0058	0.620	-0.2033	0.2125
17.40	8.1358	0.720	-0.3333	0.2196
17.40	9.7177	0.860	-0.3800	0.2534
17.40	11.2997	1.000	0.1085	
19.80	6.9435	0.540	-0.1995	0.1899
19.80	7.9721	0.620	-0.2338	0.2057
19.80	9.2580	0.720	-0.3157	0.2117
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.2179	
0.54	4.6290	13.200	-0.1639	0.2091
0.54	5.2602	15.000	-0.1357	
0.54	6.1018	17.400	-0.1875	0.2038
0.54	6.9435	19.800	-0.1995	0.1899
0.62	4.3484	10.800	-0.2587	
0.62	5.3148	13.200	-0.2093	0.2167
0.62	6.0395	15.000	-0.2660	
0.62	7.0058	17.400	-0.2033	0.2125
0.62	7.9721	19.800	-0.2338	0.2117
0.72	5.0498	10.800	-0.3519	
0.72	6.1720	13.200	-0.3516	
0.72	7.0136	15.000	-0.3442	
0.72	8.1358	17.400	-0.3333	0.2196
0.72	9.2580	19.800	-0.3157	0.2117
0.86	6.0317	10.800	-0.3772	
0.86	7.3721	13.200	-0.3788	0.2598
0.86	8.3774	15.000	-0.3751	
0.86	9.7177	17.400	-0.3800	0.2534
1.00	7.0136	10.800	0.0968	
1.00	8.5722	13.200	0.2001	0.2707
1.00	9.7411	15.000	0.1401	
1.00	10.5204	16.200	0.1909	
1.00	11.2997	17.400	0.1085	
ETA	Y	X	CP-UP	CP-LOW

TABLE AIV.- FLAT WING-BODY CANARD CONFIGURATION WITH NOSE 1

(a) $\delta_c = 0°$

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
10	252	1.62	2.040	0.0	455.3	1085.3	247.9	2.000

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.0339
10.80	3.7873	0.540	-0.0388	
10.80	4.3484	0.620	-0.0360	
10.80	4.7692	0.680	-0.0387	
10.80	4.9095	0.700		0.0505
10.80	5.0498	0.720	-0.0510	
10.80	6.0317	0.860	-0.1448	
10.80	6.4876	0.925	-0.1718	0.0471
10.80	6.8032	0.970	-0.1324	
10.80	6.9084	0.985	-0.1197	0.1426
10.80	7.0136	1.000	0.2912	
13.20	3.4289	0.400	-0.0310	0.0470
13.20	3.9432	0.460	-0.0286	
13.20	4.6290	0.540	-0.0288	0.0570
13.20	4.9719	0.580	-0.0240	
13.20	5.3148	0.620	-0.0275	0.0608
13.20	5.6576	0.660	-0.0329	
13.20	5.8291	0.680	-0.0381	
13.20	6.0005	0.700	-0.0417	0.0596
13.20	6.1720	0.720	-0.0471	
13.20	6.3434	0.740	-0.0510	
13.20	6.6863	0.780	-0.0704	0.0551
13.20	7.0292	0.820	-0.0982	
13.20	7.3721	0.860	-0.1475	0.0490
13.20	7.7150	0.900	-0.1720	0.0528
13.20	7.9293	0.925	-0.1708	0.0630
13.20	8.1436	0.950	-0.1766	0.0738
13.20	8.3150	0.970	-0.1244	0.0917
13.20	8.4436	0.985	-0.1151	0.1449
13.20	8.5293	0.995	0.0387	0.2197
13.20	8.5722	1.000	0.3619	0.3777
15.00	5.2602	0.540	-0.0182	
15.00	6.0395	0.620	-0.0217	
15.00	7.0136	0.720	-0.0365	
15.00	8.3774	0.860	-0.1305	
15.00	9.7411	1.000	0.3293	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.3921
2	-0.2881
3	-0.2832
4	-0.2372

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.3562	
17.40	6.1018	0.540	-0.0326	0.0490
17.40	7.0058	0.620	-0.0258	0.0548
17.40	8.1358	0.720	-0.0355	0.0512
17.40	9.7177	0.860	-0.1253	0.0435
17.40	11.2997	1.000	0.3220	
19.80	6.9435	0.540	-0.0702	0.0415
19.80	7.9721	0.620	-0.0358	0.0507
19.80	9.2580	0.720	-0.0514	0.0436
X	Y	ETA	CP-UP	CP-LOW
ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.0388	
0.54	4.6290	13.200	-0.0288	0.0570
0.54	5.2602	15.000	-0.0182	
0.54	6.1018	17.400	-0.0326	0.0490
0.54	6.9435	19.800	-0.0702	0.0415
0.62	4.3484	10.800	-0.0360	
0.62	5.3148	13.200	-0.0275	0.0608
0.62	6.0395	15.000	-0.0217	
0.62	7.0058	17.400	-0.0258	0.0548
0.62	7.9721	19.800	-0.0358	0.0436
0.72	5.0498	10.800	-0.0510	
0.72	6.1720	13.200	-0.0471	
0.72	7.0136	15.000	-0.0365	
0.72	8.1358	17.400	-0.0355	0.0512
0.72	9.2580	19.800	-0.0514	0.0436
0.86	6.0317	10.800	-0.1448	
0.86	7.3721	13.200	-0.1475	0.0490
0.86	8.3774	15.000	-0.1305	
0.86	9.7177	17.400	-0.1253	0.0435
1.00	7.0136	10.800	0.2912	
1.00	8.5722	13.200	0.3619	0.3777
1.00	9.7411	15.000	0.3293	
1.00	10.5204	16.200	0.3562	
1.00	11.2997	17.400	0.3220	
ETA	Y	X	CP-UP	CP-LOW

TABLE AIV.- Continued

(a) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
10	253	1.62	3.970	0.0	454.6	1083.5	247.5	1.997

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.0686
10.80	3.7873	0.540	-0.0742	
10.80	4.3484	0.620	-0.0749	
10.80	4.7692	0.680	-0.0808	
10.80	4.9095	0.700		0.0951
10.80	5.0498	0.720	-0.0932	
10.80	6.0317	0.860	-0.2421	
10.80	6.4876	0.925	-0.2564	0.1216
10.80	6.8032	0.970	-0.2516	
10.80	6.9084	0.985	-0.2409	0.2345
10.80	7.0136	1.000	0.2290	
13.20	3.4289	0.400	-0.0639	0.0843
13.20	3.9432	0.460	-0.0629	
13.20	4.6290	0.540	-0.0638	0.0976
13.20	4.9719	0.580	-0.0619	
13.20	5.3148	0.620	-0.0651	0.1013
13.20	5.6576	0.660	-0.0671	
13.20	5.8291	0.680	-0.0787	
13.20	6.0005	0.700	-0.0821	0.1084
13.20	6.1720	0.720	-0.0826	
13.20	6.3434	0.740	-0.0882	
13.20	6.6863	0.780	-0.1277	0.1071
13.20	7.0292	0.820	-0.2188	
13.20	7.3721	0.860	-0.2527	0.1115
13.20	7.7150	0.900	-0.2532	0.1281
13.20	7.9293	0.925	-0.2543	0.1420
13.20	8.1436	0.950	-0.2621	0.1653
13.20	8.3150	0.970	-0.2460	0.1843
13.20	8.4436	0.985	-0.2292	0.2497
13.20	8.5293	0.995	-0.0588	0.3245
13.20	8.5722	1.000	0.3224	0.3781
15.00	5.2602	0.540	-0.0568	
15.00	6.0395	0.620	-0.0618	
15.00	7.0136	0.720	-0.0841	
15.00	8.3774	0.860	-0.2457	
15.00	9.7411	1.000	0.2801	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4302
2	-0.3050
3	-0.2859
4	-0.2384

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.3089	
17.40	6.1018	0.540	-0.0667	0.0889
17.40	7.0058	0.620	-0.0641	0.0966
17.40	8.1358	0.720	-0.0867	0.0973
17.40	9.7177	0.860	-0.2516	0.1047
17.40	11.2997	1.000	0.2616	
19.80	6.9435	0.540	-0.1051	0.0777
19.80	7.9721	0.620	-0.0725	0.0905
19.80	9.2580	0.720	-0.0978	0.0872
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.0742	
0.54	4.6290	13.200	-0.0638	0.0976
0.54	5.2602	15.000	-0.0568	
0.54	6.1018	17.400	-0.0667	0.0889
0.54	6.9435	19.800	-0.1051	0.0777
0.62	4.3484	10.800	-0.0749	
0.62	5.3148	13.200	-0.0651	0.1013
0.62	6.0395	15.000	-0.0618	
0.62	7.0058	17.400	-0.0641	0.0966
0.62	7.9721	19.800	-0.0725	0.0872
0.72	5.0498	10.800	-0.0932	
0.72	6.1720	13.200	-0.0826	
0.72	7.0136	15.000	-0.0841	
0.72	8.1358	17.400	-0.0867	0.0973
0.72	9.2580	19.800	-0.0978	0.0872
0.86	6.0317	10.800	-0.2421	
0.86	7.3721	13.200	-0.2527	0.1115
0.86	8.3774	15.000	-0.2457	
0.86	9.7177	17.400	-0.2516	0.1047
1.00	7.0136	10.800	0.2290	
1.00	8.5722	13.200	0.3224	0.3781
1.00	9.7411	15.000	0.2801	
1.00	10.5204	16.200	0.3089	
1.00	11.2997	17.400	0.2616	
ETA	Y	X	CP-UP	CP-LOW

TABLE AIV.- Continued

(a) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
10	254	1.62	6.030	0.0	455.6	1085.8	248.0	2.001

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.0989
10.80	3.7873	0.540	-0.1079	
10.80	4.3484	0.620	-0.1124	
10.80	4.7692	0.680	-0.1265	
10.80	4.9095	0.700		0.1341
10.80	5.0498	0.720	-0.1254	
10.80	6.0317	0.860	-0.3061	
10.80	6.4876	0.925	-0.3347	0.1880
10.80	6.8032	0.970	-0.3374	
10.80	6.9084	0.985	-0.3285	0.3116
10.80	7.0136	1.000	0.1678	
13.20	3.4289	0.400	-0.0939	0.1258
13.20	3.9432	0.460	-0.0982	
13.20	4.6290	0.540	-0.1005	0.1359
13.20	4.9719	0.580	-0.1028	
13.20	5.3148	0.620	-0.1008	0.1416
13.20	5.6576	0.660	-0.1061	
13.20	5.8291	0.680	-0.1061	
13.20	6.0005	0.700	-0.1399	0.1484.
13.20	6.1720	0.720	-0.1795	
13.20	6.3434	0.740	-0.1712	
13.20	6.6863	0.780	-0.2468	0.1544
13.20	7.0292	0.820	-0.3004	
13.20	7.3721	0.860	-0.3181	0.1654
13.20	7.7150	0.900	-0.3283	0.1880
13.20	7.9293	0.925	-0.3305	0.2080
13.20	8.1436	0.950	-0.3412	0.2357
13.20	8.3150	0.970	-0.3330	0.2582
13.20	8.4436	0.985	-0.3130	0.3234
13.20	8.5293	0.995	-0.1507	0.3866
13.20	8.5722	1.000	0.2784	0.3382
15.00	5.2602	0.540	-0.0919	
15.00	6.0395	0.620	-0.0939	
15.00	7.0136	0.720	-0.1467	
15.00	8.3774	0.860	-0.3172	
15.00	9.7411	1.000	0.2257	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4362
2	-0.3644
3	-0.2972
4	-0.2410

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2624	
17.40	6.1018	0.540	-0.0955	0.1365
17.40	7.0058	0.620	-0.1122	0.1424
17.40	8.1358	0.720	-0.1568	0.1487
17.40	9.7177	0.860	-0.3183	0.1659
17.40	11.2997	1.000	0.2120	
19.80	6.9435	0.540	-0.1401	0.1270
19.80	7.9721	0.620	-0.1086	0.1400
19.80	9.2580	0.720	-0.1764	0.1423
X	Y	ETA	CP-UP	CP-LOW
ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1079	
0.54	4.6290	13.200	-0.1005	0.1359
0.54	5.2602	15.000	-0.0919	
0.54	6.1018	17.400	-0.0955	0.1365
0.54	6.9435	19.800	-0.1401	0.1270
0.62	4.3484	10.800	-0.1124	
0.62	5.3148	13.200	-0.1008	0.1416
0.62	6.0395	15.000	-0.0939	
0.62	7.0058	17.400	-0.1122	0.1424
0.62	7.9721	19.800	-0.1086	0.1423
0.72	5.0498	10.800	-0.1254	
0.72	6.1720	13.200	-0.1795	
0.72	7.0136	15.000	-0.1467	
0.72	8.1358	17.400	-0.1568	0.1487
0.72	9.2580	19.800	-0.1764	0.1423
0.86	6.0317	10.800	-0.3061	
0.86	7.3721	13.200	-0.3181	0.1654
0.86	8.3774	15.000	-0.3172	
0.86	9.7177	17.400	-0.3183	0.1659
1.00	7.0136	10.800	0.1678	
1.00	8.5722	13.200	0.2784	0.3382
1.00	9.7411	15.000	0.2257	
1.00	10.5204	16.200	0.2624	
1.00	11.2997	17.400	0.2120	
ETA	Y	X	CP-UP	CP-LOW

TABLE AIV.- Continued

(a) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	HO(PSF)	P(PSF)	RE/FT(X10-6)
10	255	1.62	6.980	0.0	454.5	1083.3	247.4	1.997

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1145
10.80	3.7873	0.540	-0.1291	
10.80	4.3484	0.620	-0.1323	
10.80	4.7692	0.680	-0.1506	
10.80	4.9095	0.700		0.1482
10.80	5.0498	0.720	-0.1551	
10.80	6.0317	0.860	-0.3357	
10.80	6.4876	0.925	-0.3660	0.2159
10.80	6.8032	0.970	-0.3707	
10.80	6.9084	0.985	-0.3604	0.3296
10.80	7.0136	1.000	0.1307	
13.20	3.4289	0.400	-0.1136	0.1440
13.20	3.9432	0.460	-0.1188	
13.20	4.6290	0.540	-0.1200	0.1563
13.20	4.9719	0.580	-0.1216	
13.20	5.3148	0.620	-0.1235	0.1595
13.20	5.6576	0.660	-0.1256	
13.20	5.8291	0.680	-0.1189	
13.20	6.0005	0.700	-0.1712	0.1693
13.20	6.1720	0.720	-0.2623	
13.20	6.3434	0.740	-0.2734	
13.20	6.6863	0.780	-0.2656	0.1791
13.20	7.0292	0.820	-0.3279	
13.20	7.3721	0.860	-0.3364	0.1933
13.20	7.7150	0.900	-0.3514	0.2166
13.20	7.9293	0.925	-0.3584	0.2338
13.20	8.1436	0.950	-0.3712	0.2632
13.20	8.3150	0.970	-0.3641	0.2861
13.20	8.4436	0.985	-0.3491	0.3476
13.20	8.5293	0.995	-0.1860	0.4031
13.20	8.5722	1.000	0.2467	0.3130
15.00	5.2602	0.540	-0.1158	
15.00	6.0395	0.620	-0.1140	
15.00	7.0136	0.720	-0.1755	
15.00	8.3774	0.860	-0.3334	
15.00	9.7411	1.000	0.1940	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4344
2	-0.3795
3	-0.3020
4	-0.2449

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2375	
17.40	6.1018	0.540	-0.1088	0.1537
17.40	7.0058	0.620	-0.1209	0.1625
17.40	8.1358	0.720	-0.2246	0.1702
17.40	9.7177	0.860	-0.3439	0.1941
17.40	11.2997	1.000	0.1773	
19.80	6.9435	0.540	-0.1533	0.1447
19.80	7.9721	0.620	-0.1330	0.1587
19.80	9.2580	0.720	-0.2208	0.1619
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1291	
0.54	4.6290	13.200	-0.1200	0.1563
0.54	5.2602	15.000	-0.1158	
0.54	6.1018	17.400	-0.1088	0.1537
0.54	6.9435	19.800	-0.1533	0.1447
0.62	4.3484	10.800	-0.1323	
0.62	5.3148	13.200	-0.1235	0.1595
0.62	6.0395	15.000	-0.1140	
0.62	7.0058	17.400	-0.1209	0.1625
0.62	7.9721	19.800	-0.1330	0.1619
0.72	5.0498	10.800	-0.1551	
0.72	6.1720	13.200	-0.2623	
0.72	7.0136	15.000	-0.1755	
0.72	8.1358	17.400	-0.2246	0.1702
0.72	9.2580	19.800	-0.2208	0.1619
0.86	6.0317	10.800	-0.3357	
0.86	7.3721	13.200	-0.3364	0.1933
0.86	8.3774	15.000	-0.3334	
0.86	9.7177	17.400	-0.3439	0.1941
1.00	7.0136	10.800	0.1307	
1.00	8.5722	13.200	0.2467	0.3130
1.00	9.7411	15.000	0.1940	
1.00	10.5204	16.200	0.2375	
1.00	11.2997	17.400	0.1773	
ETA	Y	X	CP-UP	CP-LOW

TABLE AIV.- Continued

(a) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	HO(PSF)	P(PSF)	RE/FT(X10-6)
10	256	1.62	8.050	0.0	454.9	1084.2	247.6	1.998

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1345
10.80	3.7873	0.540	-0.1496	
10.80	4.3484	0.620	-0.1525	
10.80	4.7692	0.680	-0.1868	
10.80	4.9095	0.700		0.1720
10.80	5.0498	0.720	-0.2062	
10.80	6.0317	0.860	-0.3586	
10.80	6.4876	0.925	-0.3783	0.2519
10.80	6.8032	0.970	-0.4003	
10.80	6.9084	0.985	-0.3874	0.3549
10.80	7.0136	1.000	0.0987	
13.20	3.4289	0.400	-0.1304	0.1685
13.20	3.9432	0.460	-0.1351	
13.20	4.6290	0.540	-0.1357	0.1799
13.20	4.9719	0.580	-0.1357	
13.20	5.3148	0.620	-0.1361	0.1870
13.20	5.6576	0.660	-0.1812	
13.20	5.8291	0.680	-0.1995	
13.20	6.0005	0.700	-0.2805	0.1972
13.20	6.1720	0.720	-0.2817	
13.20	6.3434	0.740	-0.2961	
13.20	6.6863	0.780	-0.2822	0.2130
13.20	7.0292	0.820	-0.3542	
13.20	7.3721	0.860	-0.3561	0.2300
13.20	7.7150	0.900	-0.3677	0.2542
13.20	7.9293	0.925	-0.3810	0.2712
13.20	8.1436	0.950	-0.3963	0.2991
13.20	8.3150	0.970	-0.3898	0.3284
13.20	8.4436	0.985	-0.3774	0.3785
13.20	8.5293	0.995	-0.2223	0.4238
13.20	8.5722	1.000	0.2188	0.2843
15.00	5.2602	0.540	-0.1274	
15.00	6.0395	0.620	-0.1574	
15.00	7.0136	0.720	-0.2415	
15.00	8.3774	0.860	-0.3529	
15.00	9.7411	1.000	0.1595	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4392
2	-0.3922
3	-0.3253
4	-0.2487

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2116	
17.40	6.1018	0.540	-0.1279	0.1799
17.40	7.0058	0.620	-0.1677	0.1883
17.40	8.1358	0.720	-0.2841	0.1988
17.40	9.7177	0.860	-0.3644	0.2262
17.40	11.2997	1.000	0.1357	
19.80	6.9435	0.540	-0.1723	0.1684
19.80	7.9721	0.620	-0.1890	0.1829
19.80	9.2580	0.720	-0.2572	0.1893
X	Y	ETA	CP-UP	CP-LOW
ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1496	
0.54	4.6290	13.200	-0.1357	0.1799
0.54	5.2602	15.000	-0.1274	
0.54	6.1018	17.400	-0.1279	0.1799
0.54	6.9435	19.800	-0.1723	0.1684
0.62	4.3484	10.800	-0.1525	
0.62	5.3148	13.200	-0.1361	0.1870
0.62	6.0395	15.000	-0.1574	
0.62	7.0058	17.400	-0.1677	0.1883
0.62	7.9721	19.800	-0.1890	0.1893
0.72	5.0498	10.800	-0.2062	
0.72	6.1720	13.200	-0.2817	
0.72	7.0136	15.000	-0.2415	
0.72	8.1358	17.400	-0.2841	0.1988
0.72	9.2580	19.800	-0.2572	0.1893
0.86	6.0317	10.800	-0.3586	
0.86	7.3721	13.200	-0.3561	0.2300
0.86	8.3774	15.000	-0.3529	
0.86	9.7177	17.400	-0.3644	0.2262
1.00	7.0136	10.800	0.0987	
1.00	8.5722	13.200	0.2188	0.2843
1.00	9.7411	15.000	0.1595	
1.00	10.5204	16.200	0.2116	
1.00	11.2997	17.400	0.1357	
ETA	Y	X	CP-UP	CP-LOW

TABLE AIV.- Continued

(a) Concluded

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
10	257	1.62	9.050	0.0	454.9	1084.3	247.6	1.999

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1539
10.80	3.7873	0.540	-0.1680	
10.80	4.3484	0.620	-0.1576	
10.80	4.7692	0.680	-0.2585	
10.80	4.9095	0.700		0.1948
10.80	5.0498	0.720	-0.3167	
10.80	6.0317	0.860	-0.3758	
10.80	6.4876	0.925	-0.3778	0.2793
10.80	6.8032	0.970	-0.4005	
10.80	6.9084	0.985	-0.4165	0.3776
10.80	7.0136	1.000	0.0739	
13.20	3.4289	0.400	-0.1415	0.1918
13.20	3.9432	0.460	-0.1476	
13.20	4.6290	0.540	-0.1469	0.2035
13.20	4.9719	0.580	-0.1368	
13.20	5.3148	0.620	-0.1473	0.2107
13.20	5.6576	0.660	-0.2881	
13.20	5.8291	0.680	-0.2961	
13.20	6.0005	0.700	-0.3076	0.2213
13.20	6.1720	0.720	-0.3101	
13.20	6.3434	0.740	-0.3266	
13.20	6.6863	0.780	-0.3380	0.2376
13.20	7.0292	0.820	-0.3736	
13.20	7.3721	0.860	-0.3724	0.2608
13.20	7.7150	0.900	-0.3717	0.2797
13.20	7.9293	0.925	-0.3737	0.3020
13.20	8.1436	0.950	-0.3767	0.3252
13.20	8.3150	0.970	-0.3877	0.3588
13.20	8.4436	0.985	-0.4044	0.4037
13.20	8.5293	0.995	-0.2522	0.4352
13.20	8.5722	1.000	0.1903	0.2526
15.00	5.2602	0.540	-0.1284	
15.00	6.0395	0.620	-0.2590	
15.00	7.0136	0.720	-0.3004	
15.00	8.3774	0.860	-0.3722	
15.00	9.7411	1.000	0.1358	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4292
2	-0.3881
3	-0.3303
4	-0.2602

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.1880	
17.40	6.1018	0.540	-0.1475	0.2013
17.40	7.0058	0.620	-0.2630	0.2119
17.40	8.1358	0.720	-0.2870	0.2215
17.40	9.7177	0.860	-0.3777	0.2564
17.40	11.2997	1.000	0.1024	
19.80	6.9435	0.540	-0.2234	0.1912
19.80	7.9721	0.620	-0.2726	0.2039
19.80	9.2580	0.720	-0.2478	0.2135
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1680	
0.54	4.6290	13.200	-0.1469	0.2035
0.54	5.2602	15.000	-0.1284	
0.54	6.1018	17.400	-0.1475	0.2013
0.54	6.9435	19.800	-0.2234	0.1912
0.62	4.3484	10.800	-0.1576	
0.62	5.3148	13.200	-0.1473	0.2107
0.62	6.0395	15.000	-0.2590	
0.62	7.0058	17.400	-0.2630	0.2119
0.62	7.9721	19.800	-0.2726	0.2135
0.72	5.0498	10.800	-0.3167	
0.72	6.1720	13.200	-0.3101	
0.72	7.0136	15.000	-0.3004	
0.72	8.1358	17.400	-0.2870	0.2215
0.72	9.2580	19.800	-0.2478	0.2135
0.86	6.0317	10.800	-0.3758	
0.86	7.3721	13.200	-0.3724	0.2608
0.86	8.3774	15.000	-0.3722	
0.86	9.7177	17.400	-0.3777	0.2564
1.00	7.0136	10.800	0.0739	
1.00	8.5722	13.200	0.1903	0.2526
1.00	9.7411	15.000	0.1358	
1.00	10.5204	16.200	0.1880	
1.00	11.2997	17.400	0.1024	
ETA	Y	X	CP-UP	CP-LOW

TABLE AIV.- Continued

(b) $\delta_c = -5°$

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
12	275	1.62	2.020	0.0	456.1	1087.1	248.3	2.004

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.0484
10.80	3.7873	0.540	-0.0405	
10.80	4.3484	0.620	-0.0406	
10.80	4.7692	0.680	-0.0534	
10.80	4.9095	0.700		0.0630
10.80	5.0498	0.720	-0.0670	
10.80	6.0317	0.860	-0.1902	
10.80	6.4876	0.925	-0.1610	0.0492
10.80	6.8032	0.970	-0.1126	
10.80	6.9084	0.985	-0.1011	0.1368
10.80	7.0136	1.000	0.3166	
13.20	3.4289	0.400	-0.0255	0.0463
13.20	3.9432	0.460	-0.0236	
13.20	4.6290	0.540	-0.0209	0.0585
13.20	4.9719	0.580	-0.0192	
13.20	5.3148	0.620	-0.0214	0.0608
13.20	5.6576	0.660	-0.0276	
13.20	5.8291	0.680	-0.0349	
13.20	6.0005	0.700	-0.0355	0.0610
13.20	6.1720	0.720	-0.0392	
13.20	6.3434	0.740	-0.0426	
13.20	6.6863	0.780	-0.0797	0.0577
13.20	7.0292	0.820	-0.1726	
13.20	7.3721	0.860	-0.1680	0.0524
13.20	7.7150	0.900	-0.1524	0.0575
13.20	7.9293	0.925	-0.1562	0.0671
13.20	8.1436	0.950	-0.1631	0.0761
13.20	8.3150	0.970	-0.1106	0.0965
13.20	8.4436	0.985	-0.1008	0.1453
13.20	8.5293	0.995	0.0618	0.2256
13.20	8.5722	1.000	0.3650	0.3882
15.00	5.2602	0.540	-0.0104	
15.00	6.0395	0.620	-0.0131	
15.00	7.0136	0.720	-0.0326	
15.00	8.3774	0.860	-0.1621	
15.00	9.7411	1.000	0.3331	

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.3539	
17.40	6.1018	0.540	-0.0283	0.0416
17.40	7.0058	0.620	-0.0127	0.0505
17.40	8.1358	0.720	-0.0243	0.0465
17.40	9.7177	0.860	-0.1551	0.0371
17.40	11.2997	1.000	0.3287	
19.80	6.9435	0.540	-0.0748	0.0390
19.80	7.9721	0.620	-0.0342	0.0453
19.80	9.2580	0.720	-0.0446	0.0380

X	Y	ETA	CP-UP	CP-LOW
ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.0405	
0.54	4.6290	13.200	-0.0209	0.0585
0.54	5.2602	15.000	-0.0104	
0.54	6.1018	17.400	-0.0283	0.0416
0.54	6.9435	19.800	-0.0748	0.0390
0.62	4.3484	10.800	-0.0406	
0.62	5.3148	13.200	-0.0214	0.0608
0.62	6.0395	15.000	-0.0131	
0.62	7.0058	17.400	-0.0127	0.0505
0.62	7.9721	19.800	-0.0342	0.0380
0.72	5.0498	10.800	-0.0670	
0.72	6.1720	13.200	-0.0392	
0.72	7.0136	15.000	-0.0326	
0.72	8.1358	17.400	-0.0243	0.0465
0.72	9.2580	19.800	-0.0446	0.0380
0.86	6.0317	10.800	-0.1902	
0.86	7.3721	13.200	-0.1680	0.0524
0.86	8.3774	15.000	-0.1621	
0.86	9.7177	17.400	-0.1551	0.0371
1.00	7.0136	10.800	0.3166	
1.00	8.5722	13.200	0.3650	0.3882
1.00	9.7411	15.000	0.3331	
1.00	10.5204	16.200	0.3539	
1.00	11.2997	17.400	0.3287	

ETA	Y	X	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.3900
2	-0.2998
3	-0.2823
4	-0.2373

TABLE AIV.- Continued

(b) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
12	276	1.62	4.020	0.0	455.9	1086.5	248.1	2.003

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.0745
10.80	3.7873	0.540	-0.0779	
10.80	4.3484	0.620	-0.0798	
10.80	4.7692	0.680	-0.0951	
10.80	4.9095	0.700		0.0994
10.80	5.0498	0.720	-0.1316	
10.80	6.0317	0.860	-0.2622	
10.80	6.4876	0.925	-0.2523	0.1301
10.80	6.8032	0.970	-0.2369	
10.80	6.9084	0.985	-0.2287	0.2417
10.80	7.0136	1.000	0.2526	
13.20	3.4289	0.400	-0.0516	0.0866
13.20	3.9432	0.460	-0.0533	
13.20	4.6290	0.540	-0.0535	0.1017
13.20	4.9719	0.580	-0.0541	
13.20	5.3148	0.620	-0.0601	0.1023
13.20	5.6576	0.660	-0.0670	
13.20	5.8291	0.680	-0.0777	
13.20	6.0005	0.700	-0.0856	0.1073
13.20	6.1720	0.720	-0.0975	
13.20	6.3434	0.740	-0.1261	
13.20	6.6863	0.780	-0.2133	0.1098
13.20	7.0292	0.820	-0.2528	
13.20	7.3721	0.860	-0.2490	0.1105
13.20	7.7150	0.900	-0.2409	0.1254
13.20	7.9293	0.925	-0.2429	0.1378
13.20	8.1436	0.950	-0.2567	0.1613
13.20	8.3150	0.970	-0.2365	0.1753
13.20	8.4436	0.985	-0.2255	0.2366
13.20	8.5293	0.995	-0.0550	0.3158
13.20	8.5722	1.000	0.3270	0.3722
15.00	5.2602	0.540	-0.0476	
15.00	6.0395	0.620	-0.0528	
15.00	7.0136	0.720	-0.0845	
15.00	8.3774	0.860	-0.2407	
15.00	9.7411	1.000	0.2918	

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.3163	
17.40	6.1018	0.540	-0.0603	0.0947
17.40	7.0058	0.620	-0.0561	0.0986
17.40	8.1358	0.720	-0.0891	0.1007
17.40	9.7177	0.860	-0.2445	0.1063
17.40	11.2997	1.000	0.2704	
19.80	6.9435	0.540	-0.1023	0.0865
19.80	7.9721	0.620	-0.0657	0.0942
19.80	9.2580	0.720	-0.0971	0.0913

X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.0779	
0.54	4.6290	13.200	-0.0535	0.1017
0.54	5.2602	15.000	-0.0476	
0.54	6.1018	17.400	-0.0603	0.0947
0.54	6.9435	19.800	-0.1023	0.0865
0.62	4.3484	10.800	-0.0798	
0.62	5.3148	13.200	-0.0601	0.1023
0.62	6.0395	15.000	-0.0528	
0.62	7.0058	17.400	-0.0561	0.0986
0.62	7.9721	19.800	-0.0657	0.0913
0.72	5.0498	10.800	-0.1316	
0.72	6.1720	13.200	-0.0975	
0.72	7.0136	15.000	-0.0845	
0.72	8.1358	17.400	-0.0891	0.1007
0.72	9.2580	19.800	-0.0971	0.0913
0.86	6.0317	10.800	-0.2622	
0.86	7.3721	13.200	-0.2490	0.1105
0.86	8.3774	15.000	-0.2407	
0.86	9.7177	17.400	-0.2445	0.1063
1.00	7.0136	10.800	0.2526	
1.00	8.5722	13.200	0.3270	0.3722
1.00	9.7411	15.000	0.2918	
1.00	10.5204	16.200	0.3163	
1.00	11.2997	17.400	0.2704	

ETA	Y	X	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4299
2	-0.3157
3	-0.2845
4	-0.2378

TABLE AIV.- Continued

(b) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
12	277	1.62	6.030	0.0	455.3	1085.2	247.9	2.000

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1080
10.80	3.7873	0.540	-0.1120	
10.80	4.3484	0.620	-0.1221	
10.80	4.7692	0.680	-0.1262	
10.80	4.9095	0.700		0.1413
10.80	5.0498	0.720	-0.2488	
10.80	6.0317	0.860	-0.3172	
10.80	6.4876	0.925	-0.3255	0.1919
10.80	6.8032	0.970	-0.3241	
10.80	6.9084	0.985	-0.3194	0.3134
10.80	7.0136	1.000	0.1864	
13.20	3.4289	0.400	-0.0881	0.1257
13.20	3.9432	0.460	-0.0857	
13.20	4.6290	0.540	-0.0991	0.1402
13.20	4.9719	0.580	-0.0878	
13.20	5.3148	0.620	-0.0990	0.1457
13.20	5.6576	0.660	-0.1319	
13.20	5.8291	0.680	-0.1623	
13.20	6.0005	0.700	-0.1799	0.1555
13.20	6.1720	0.720	-0.1778	
13.20	6.3434	0.740	-0.2260	
13.20	6.6863	0.780	-0.2852	0.1609
13.20	7.0292	0.820	-0.3141	
13.20	7.3721	0.860	-0.3177	0.1711
13.20	7.7150	0.900	-0.3181	0.1927
13.20	7.9293	0.925	-0.3227	0.2105
13.20	8.1436	0.950	-0.3335	0.2382
13.20	8.3150	0.970	-0.3252	0.2584
13.20	8.4436	0.985	-0.3115	0.3220
13.20	8.5293	0.995	-0.1420	0.3857
13.20	8.5722	1.000	0.2814	0.3415
15.00	5.2602	0.540	-0.0892	
15.00	6.0395	0.620	-0.1196	
15.00	7.0136	0.720	-0.1704	
15.00	8.3774	0.860	-0.3168	
15.00	9.7411	1.000	0.2290	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4291
2	-0.3586
3	-0.3004
4	-0.2426

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2663	
17.40	6.1018	0.540	-0.0941	0.1333
17.40	7.0058	0.620	-0.1008	0.1400
17.40	8.1358	0.720	-0.1767	0.1450
17.40	9.7177	0.860	-0.3188	0.1632
17.40	11.2997	1.000	0.2092	
19.80	6.9435	0.540	-0.1305	0.1229
19.80	7.9721	0.620	-0.1049	0.1371
19.80	9.2580	0.720	-0.1784	0.1367
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1120	
0.54	4.6290	13.200	-0.0991	0.1402
0.54	5.2602	15.000	-0.0892	
0.54	6.1018	17.400	-0.0941	0.1333
0.54	6.9435	19.800	-0.1305	0.1229
0.62	4.3484	10.800	-0.1221	
0.62	5.3148	13.200	-0.0990	0.1457
0.62	6.0395	15.000	-0.1196	
0.62	7.0058	17.400	-0.1008	0.1400
0.62	7.9721	19.800	-0.1049	0.1367
0.72	5.0498	10.800	-0.2488	
0.72	6.1720	13.200	-0.1778	
0.72	7.0136	15.000	-0.1704	
0.72	8.1358	17.400	-0.1767	0.1450
0.72	9.2580	19.800	-0.1784	0.1367
0.86	6.0317	10.800	-0.3172	
0.86	7.3721	13.200	-0.3177	0.1711
0.86	8.3774	15.000	-0.3168	
0.86	9.7177	17.400	-0.3188	0.1632
1.00	7.0136	10.800	0.1864	
1.00	8.5722	13.200	0.2814	0.3415
1.00	9.7411	15.000	0.2290	
1.00	10.5204	16.200	0.2663	
1.00	11.2997	17.400	0.2092	
ETA	Y	X	CP-UP	CP-LOW

TABLE AIV.- Continued

(b) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
12	278	1.62	7.040	0.0	455.8	1086.4	248.1	2.002

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1288
10.80	3.7873	0.540	-0.1287	
10.80	4.3484	0.620	-0.1443	
10.80	4.7692	0.680	-0.1559	
10.80	4.9095	0.700		0.1629
10.80	5.0498	0.720	-0.2865	
10.80	6.0317	0.860	-0.3358	
10.80	6.4876	0.925	-0.3586	0.2293
10.80	6.8032	0.970	-0.3622	
10.80	6.9084	0.985	-0.3511	0.3404
10.80	7.0136	1.000	0.1515	
13.20	3.4289	0.400	-0.1019	0.1448
13.20	3.9432	0.460	-0.1058	
13.20	4.6290	0.540	-0.1241	0.1588
13.20	4.9719	0.580	-0.1094	
13.20	5.3148	0.620	-0.1090	0.1652
13.20	5.6576	0.660	-0.1550	
13.20	5.8291	0.680	-0.2218	
13.20	6.0005	0.700	-0.2641	0.1744
13.20	6.1720	0.720	-0.2432	
13.20	6.3434	0.740	-0.2831	
13.20	6.6863	0.780	-0.3014	0.1850
13.20	7.0292	0.820	-0.3307	
13.20	7.3721	0.860	-0.3443	0.1967
13.20	7.7150	0.900	-0.3499	0.2230
13.20	7.9293	0.925	-0.3569	0.2411
13.20	8.1436	0.950	-0.3684	0.2699
13.20	8.3150	0.970	-0.3586	0.2946
13.20	8.4436	0.985	-0.3470	0.3522
13.20	8.5293	0.995	-0.1796	0.4090
13.20	8.5722	1.000	0.2535	0.3224
15.00	5.2602	0.540	-0.0986	
15.00	6.0395	0.620	-0.1514	
15.00	7.0136	0.720	-0.2590	
15.00	8.3774	0.860	-0.3416	
15.00	9.7411	1.000	0.2033	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4396
2	-0.3705
3	-0.3136
4	-0.2467

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2388	
17.40	6.1018	0.540	-0.1088	0.1589
17.40	7.0058	0.620	-0.1172	0.1642
17.40	8.1358	0.720	-0.2555	0.1732
17.40	9.7177	0.860	-0.3443	0.1950
17.40	11.2997	1.000	0.1780	
19.80	6.9435	0.540	-0.1371	0.1498
19.80	7.9721	0.620	-0.1285	0.1636
19.80	9.2580	0.720	-0.2356	0.1649
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1287	
0.54	4.6290	13.200	-0.1241	0.1588
0.54	5.2602	15.000	-0.0986	
0.54	6.1018	17.400	-0.1088	0.1589
0.54	6.9435	19.800	-0.1371	0.1498
0.62	4.3484	10.800	-0.1443	
0.62	5.3148	13.200	-0.1090	0.1652
0.62	6.0395	15.000	-0.1514	
0.62	7.0058	17.400	-0.1172	0.1642
0.62	7.9721	19.800	-0.1285	0.1649
0.72	5.0498	10.800	-0.2865	
0.72	6.1720	13.200	-0.2432	
0.72	7.0136	15.000	-0.2590	
0.72	8.1358	17.400	-0.2555	0.1732
0.72	9.2580	19.800	-0.2356	0.1649
0.86	6.0317	10.800	-0.3358	
0.86	7.3721	13.200	-0.3443	0.1967
0.86	8.3774	15.000	-0.3416	
0.86	9.7177	17.400	-0.3443	0.1950
1.00	7.0136	10.800	0.1515	
1.00	8.5722	13.200	0.2535	0.3224
1.00	9.7411	15.000	0.2033	
1.00	10.5204	16.200	0.2388	
1.00	11.2997	17.400	0.1780	
ETA	Y	X	CP-UP	CP-LOW

TABLE AIV.- Continued

(b) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
12	279	1.62	8.040	0.0	464.6	1107.4	252.9	2.041

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1324
10.80	3.7873	0.540	-0.1467	
10.80	4.3484	0.620	-0.2140	
10.80	4.7692	0.680	-0.2362	
10.80	4.9095	0.700		0.1676
10.80	5.0498	0.720	-0.2987	
10.80	6.0317	0.860	-0.3589	
10.80	6.4876	0.925	-0.3842	0.2415
10.80	6.8032	0.970	-0.3918	
10.80	6.9084	0.985	-0.3848	0.3434
10.80	7.0136	1.000	0.1024	
13.20	3.4289	0.400	-0.1261	0.1594
13.20	3.9432	0.460	-0.1275	
13.20	4.6290	0.540	-0.1601	0.1701
13.20	4.9719	0.580	-0.1723	
13.20	5.3148	0.620	-0.1703	0.1782
13.20	5.6576	0.660	-0.2096	
13.20	5.8291	0.680	-0.2691	
13.20	6.0005	0.700	-0.2915	0.1865
13.20	6.1720	0.720	-0.2986	
13.20	6.3434	0.740	-0.3189	
13.20	6.6863	0.780	-0.3385	0.1993
13.20	7.0292	0.820	-0.3540	
13.20	7.3721	0.860	-0.3613	0.2164
13.20	7.7150	0.900	-0.3746	0.2415
13.20	7.9293	0.925	-0.3855	0.2597
13.20	8.1436	0.950	-0.3970	0.2838
13.20	8.3150	0.970	-0.3890	0.3123
13.20	8.4436	0.985	-0.3762	0.3605
13.20	8.5293	0.995	-0.2208	0.4047
13.20	8.5722	1.000	0.2111	0.2712
15.00	5.2602	0.540	-0.1516	
15.00	6.0395	0.620	-0.1917	
15.00	7.0136	0.720	-0.3111	
15.00	8.3774	0.860	-0.3597	
15.00	9.7411	1.000	0.1573	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4483
2	-0.3919
3	-0.3267
4	-0.2554

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2035	
17.40	6.1018	0.540	-0.1450	0.1665
17.40	7.0058	0.620	-0.1434	0.1747
17.40	8.1358	0.720	-0.3071	0.1818
17.40	9.7177	0.860	-0.3701	0.2081
17.40	11.2997	1.000	0.1297	
19.80	6.9435	0.540	-0.1653	0.1559
19.80	7.9721	0.620	-0.1923	0.1709
19.80	9.2580	0.720	-0.2774	0.1750
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1467	
0.54	4.6290	13.200	-0.1601	0.1701
0.54	5.2602	15.000	-0.1516	
0.54	6.1018	17.400	-0.1450	0.1665
0.54	6.9435	19.800	-0.1653	0.1559
0.62	4.3484	10.800	-0.2140	
0.62	5.3148	13.200	-0.1703	0.1782
0.62	6.0395	15.000	-0.1917	
0.62	7.0058	17.400	-0.1434	0.1747
0.62	7.9721	19.800	-0.1923	0.1750
0.72	5.0498	10.800	-0.2987	
0.72	6.1720	13.200	-0.2986	
0.72	7.0136	15.000	-0.3111	
0.72	8.1358	17.400	-0.3071	0.1818
0.72	9.2580	19.800	-0.2774	0.1750
0.86	6.0317	10.800	-0.3589	
0.86	7.3721	13.200	-0.3613	0.2164
0.86	8.3774	15.000	-0.3597	
0.86	9.7177	17.400	-0.3701	0.2081
1.00	7.0136	10.800	0.1024	
1.00	8.5722	13.200	0.2111	0.2712
1.00	9.7411	15.000	0.1573	
1.00	10.5204	16.200	0.2035	
1.00	11.2997	17.400	0.1297	
ETA	Y	X	CP-UP	CP-LOW

TABLE AIV.- Continued

(b) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
12	279	1.62	8.040	0.0	455.7	1036.1	248.1	2.041

PRESSURES ADJUSTED TO CORRECT REFERENCE VALUES - SEE NOTE ON 1ST PAGE OF APP. A

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1456
10.80	3.7873	0.540	-0.1389	
10.80	4.3484	0.620	-0.2075	
10.80	4.7692	0.680	-0.2302	
10.80	4.9095	0.700		0.1815
10.80	5.0498	0.720	-0.2939	
10.80	6.0317	0.860	-0.3553	
10.80	6.4876	0.925	-0.3811	0.2569
10.80	6.8032	0.970	-0.3888	
10.80	6.9084	0.985	-0.3817	0.3607
10.80	7.0136	1.000	0.1150	
13.20	3.4289	0.400	-0.1179	0.1732
13.20	3.9432	0.460	-0.1193	
13.20	4.6290	0.540	-0.1526	0.1841
13.20	4.9719	0.580	-0.1650	
13.20	5.1433	0.600	-0.1630	0.1923
13.20	5.6576	0.660	-0.2031	
13.20	5.8291	0.680	-0.2637	
13.20	6.0005	0.700	-0.2866	0.2008
13.20	6.1720	0.720	-0.2938	
13.20	6.3434	0.740	-0.3145	
13.20	6.6863	0.780	-0.3345	0.2138
13.20	7.0292	0.820	-0.3503	
13.20	7.3721	0.860	-0.3577	0.2313
13.20	7.7150	0.900	-0.3713	0.2569
13.20	7.9293	0.925	-0.3824	0.2754
13.20	8.1436	0.950	-0.3941	0.3000
13.20	8.3150	0.970	-0.3860	0.3290
13.20	8.4436	0.985	-0.3729	0.3782
13.20	8.5293	0.995	-0.2145	0.4232
13.20	8.5722	1.000	0.2259	0.2871
15.00	5.2602	0.540	-0.1439	
15.00	6.0395	0.620	-0.1848	
15.00	7.0136	0.720	-0.3065	
15.00	8.3774	0.860	-0.3561	
15.00	9.7411	1.000	0.1710	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4464
2	-0.3889
3	-0.3224
4	-0.2497

X	Y	ETA	CP-UP	CP-LOW
16.20	10.5204	1.000	0.2181	
17.40	6.1018	0.540	-0.1372	0.1804
17.40	7.0058	0.620	-0.1356	0.1888
17.40	8.1358	0.720	-0.3025	0.1960
17.40	9.7177	0.860	-0.3667	0.2228
17.40	11.2997	1.000	0.1429	
19.80	6.9435	0.540	-0.1579	0.1696
19.80	7.9721	0.620	-0.1854	0.1849
19.80	9.2580	0.720	-0.2722	0.1891
X	Y	ETA	CP-UP	CP-LOW
ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1389	
0.54	4.6290	13.200	-0.1526	0.1841
0.54	5.2602	15.000	-0.1439	
0.54	6.1018	17.400	-0.1372	0.1804
0.54	6.9435	19.800	-0.1579	0.1696
0.62	4.3484	10.800	-0.2075	
0.62	6.0395	15.000	-0.1848	
0.62	7.0058	17.400	-0.1356	0.1888
0.62	7.9721	19.800	-0.1854	0.1891
0.72	5.0498	10.800	-0.2939	
0.72	6.1720	13.200	-0.2938	
0.72	7.0136	15.000	-0.3065	
0.72	8.1358	17.400	-0.3025	0.1960
0.72	9.2580	19.800	-0.2722	0.1891
0.86	6.0317	10.800	-0.3553	
0.86	7.3721	13.200	-0.3577	0.2313
0.86	8.3774	15.000	-0.3561	
0.86	9.7177	17.400	-0.3667	0.2228
1.00	7.0136	10.800	0.1150	
1.00	8.5722	13.200	0.2259	0.2871
1.00	9.7411	15.000	0.1710	
1.00	10.5204	16.200	0.2181	
1.00	11.2997	17.400	0.1429	
ETA	Y	X	CP-UP	CP-LOW

TABLE AIV.- Continued

(b) Concluded

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	HO(PSF)	P(PSF)	RE/FT(X10-6)
12	285	1.62	9.020	0.0	455.3	1085.2	247.8	2.000

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1670
10.80	3.7873	0.540	-0.1512	
10.80	4.3484	0.620	-0.2587	
10.80	4.7692	0.680	-0.2882	
10.80	4.9095	0.700		0.2015
10.80	5.0498	0.720	-0.3035	
10.80	6.0317	0.860	-0.3742	
10.80	6.4876	0.925	-0.3884	0.2850
10.80	6.8032	0.970	-0.4154	
10.80	6.9084	0.985	-0.4097	0.3813
10.80	7.0136	1.000	0.0817	
13.20	3.4289	0.400	-0.1334	0.1950
13.20	3.9432	0.460	-0.1357	
13.20	4.6290	0.540	-0.1744	0.2037
13.20	4.9719	0.580	-0.2325	
13.20	5.3148	0.620	-0.2316	0.2111
13.20	5.6576	0.660	-0.2694	
13.20	5.8291	0.680	-0.2978	
13.20	6.0005	0.700	-0.2955	0.2210
13.20	6.1720	0.720	-0.2880	
13.20	6.3434	0.740	-0.3277	
13.20	6.6863	0.780	-0.3372	0.2370
13.20	7.0292	0.820	-0.3734	
13.20	7.3721	0.860	-0.3738	0.2577
13.20	7.7150	0.900	-0.3836	0.2816
13.20	7.9293	0.925	-0.3932	0.3040
13.20	8.1436	0.950	-0.4032	0.3298
13.20	8.3150	0.970	-0.4130	0.3605
13.20	8.4436	0.985	-0.4005	0.4078
13.20	8.5293	0.995	-0.2429	0.4410
13.20	8.5722	1.000	0.2001	0.2593
15.00	5.2602	0.540	-0.1902	
15.00	6.0395	0.620	-0.2532	
15.00	7.0136	0.720	-0.3016	
15.00	8.3774	0.860	-0.3745	
15.00	9.7411	1.000	0.1357	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4386
2	-0.3934
3	-0.3379
4	-0.2573

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.1871	
17.40	6.1018	0.540	-0.1937	0.2005
17.40	7.0058	0.620	-0.2194	0.2084
17.40	8.1358	0.720	-0.2846	0.2187
17.40	9.7177	0.860	-0.3828	0.2508
17.40	11.2997	1.000	0.1051	
19.80	6.9435	0.540	-0.2188	0.1925
19.80	7.9721	0.620	-0.2380	0.2067
19.80	9.2580	0.720	-0.3026	0.2104
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1512	
0.54	4.6290	13.200	-0.1744	0.2037
0.54	5.2602	15.000	-0.1902	
0.54	6.1018	17.400	-0.1937	0.2005
0.54	6.9435	19.800	-0.2188	0.1925
0.62	4.3484	10.800	-0.2587	
0.62	5.3148	13.200	-0.2316	0.2111
0.62	6.0395	15.000	-0.2532	
0.62	7.0058	17.400	-0.2194	0.2084
0.62	7.9721	19.800	-0.2380	0.2104
0.72	5.0498	10.800	-0.3035	
0.72	6.1720	13.200	-0.2880	
0.72	7.0136	15.000	-0.3016	
0.72	8.1358	17.400	-0.2846	0.2187
0.72	9.2580	19.800	-0.3026	0.2104
0.86	6.0317	10.800	-0.3742	
0.86	7.3721	13.200	-0.3738	0.2577
0.86	8.3774	15.000	-0.3745	
0.86	9.7177	17.400	-0.3828	0.2508
1.00	7.0136	10.800	0.0817	
1.00	8.5722	13.200	0.2001	0.2593
1.00	9.7411	15.000	0.1357	
1.00	10.5204	16.200	0.1871	
1.00	11.2997	17.400	0.1051	
ETA	Y	X	CP-UP	CP-LOW

TABLE AIV.- Continued

(c) $\delta_c = -10°$

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	HO(PSF)	P(PSF)	RE/FT(X10-6)
13	297	1.62	2.000	0.0	455.7	1086.2	248.1	2.002

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.0553
10.80	3.7873	0.540	-0.0277	
10.80	4.3484	0.620	-0.0267	
10.80	4.7692	0.680	-0.0378	
10.80	4.9095	0.700		0.0696
10.80	5.0498	0.720	-0.0818	
10.80	6.0317	0.860	-0.1884	
10.80	6.4876	0.925	-0.1553	0.0573
10.80	6.8032	0.970	-0.0984	
10.80	6.9084	0.985	-0.0872	0.1382
10.80	7.0136	1.000	0.3227	
13.20	3.4289	0.400	-0.0168	0.0564
13.20	3.9432	0.460	-0.0103	
13.20	4.6290	0.540	-0.0076	0.0659
13.20	4.9719	0.580	-0.0058	
13.20	5.3148	0.620	-0.0046	0.0693
13.20	5.6576	0.660	-0.0147	
13.20	5.8291	0.680	-0.0243	
13.20	6.0005	0.700	-0.0274	0.0695
13.20	6.1720	0.720	-0.0366	
13.20	6.3434	0.740	-0.0453	
13.20	6.6863	0.780	-0.1467	0.0668
13.20	7.0292	0.820	-0.1770	
13.20	7.3721	0.860	-0.1672	0.0593
13.20	7.7150	0.900	-0.1519	0.0609
13.20	7.9293	0.925	-0.1554	0.0689
13.20	8.1436	0.950	-0.1625	0.0731
13.20	8.3150	0.970	-0.1016	0.0950
13.20	8.4436	0.985	-0.0918	0.1378
13.20	8.5293	0.995	0.0613	0.2192
13.20	8.5722	1.000	0.3688	0.3832
15.00	5.2602	0.540	-0.0010	
15.00	6.0395	0.620	-0.0017	
15.00	7.0136	0.720	-0.0232	
15.00	8.3774	0.860	-0.1597	
15.00	9.7411	1.000	0.3382	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.3929
2	-0.2865
3	-0.2812
4	-0.2394

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.3516	
17.40	6.1018	0.540	-0.0226	0.0464
17.40	7.0058	0.620	-0.0055	0.0561
17.40	8.1358	0.720	-0.0147	0.0522
17.40	9.7177	0.860	-0.1579	0.0466
17.40	11.2997	1.000	0.3208	
19.80	6.9435	0.540	-0.0708	0.0437
19.80	7.9721	0.620	-0.0232	0.0489
19.80	9.2580	0.720	-0.0288	0.0399
X	Y	ETA	CP-UP	CP-LOW
ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.0277	
0.54	4.6290	13.200	-0.0076	0.0659
0.54	5.2602	15.000	-0.0010	
0.54	6.1018	17.400	-0.0226	0.0464
0.54	6.9435	19.800	-0.0708	0.0437
0.62	4.3484	10.800	-0.0267	
0.62	5.3148	13.200	-0.0046	0.0693
0.62	6.0395	15.000	-0.0017	
0.62	7.0058	17.400	-0.0055	0.0561
0.62	7.9721	19.800	-0.0232	0.0399
0.72	5.0498	10.800	-0.0818	
0.72	6.1720	13.200	-0.0366	
0.72	7.0136	15.000	-0.0232	
0.72	8.1358	17.400	-0.0147	0.0522
0.72	9.2580	19.800	-0.0288	0.0399
0.86	6.0317	10.800	-0.1884	
0.86	7.3721	13.200	-0.1672	0.0593
0.86	8.3774	15.000	-0.1597	
0.86	9.7177	17.400	-0.1579	0.0466
1.00	7.0136	10.800	0.3227	
1.00	8.5722	13.200	0.3688	0.3832
1.00	9.7411	15.000	0.3382	
1.00	10.5204	16.200	0.3516	
1.00	11.2997	17.400	0.3208	
ETA	Y	X	CP-UP	CP-LOW

TABLE AIV.- Continued

(c) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
13	300	1.62	4.020	0.0	455.3	1085.2	247.9	2.000

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.0887
10.80	3.7873	0.540	-0.0865	
10.80	4.3484	0.620	-0.0974	
10.80	4.7692	0.680	-0.1270	
10.80	4.9095	0.700		0.1121
10.80	5.0498	0.720	-0.1613	
10.80	6.0317	0.860	-0.2500	
10.80	6.4876	0.925	-0.2352	0.1328
10.80	6.8032	0.970	-0.2230	
10.80	6.9084	0.985	-0.2149	0.2476
10.80	7.0136	1.000	0.2658	
13.20	3.4289	0.400	-0.0445	0.0882
13.20	3.9432	0.460	-0.0483	
13.20	4.6290	0.540	-0.0453	0.1043
13.20	4.9719	0.580	-0.0435	
13.20	5.3148	0.620	-0.0470	0.1085
13.20	5.6576	0.660	-0.0683	
13.20	5.8291	0.680	-0.0826	
13.20	6.0005	0.700	-0.0998	0.1135
13.20	6.1720	0.720	-0.1281	
13.20	6.3434	0.740	-0.1797	
13.20	6.6863	0.780	-0.2454	0.1201
13.20	7.0292	0.820	-0.2374	
13.20	7.3721	0.860	-0.2365	0.1215
13.20	7.7150	0.900	-0.2326	0.1370
13.20	7.9293	0.925	-0.2328	0.1500
13.20	8.1436	0.950	-0.2402	0.1746
13.20	8.3150	0.970	-0.2245	0.1868
13.20	8.4436	0.985	-0.2176	0.2500
13.20	8.5293	0.995	-0.0444	0.3166
13.20	8.5722	1.000	0.3315	0.3845
15.00	5.2602	0.540	-0.0353	
15.00	6.0395	0.620	-0.0457	
15.00	7.0136	0.720	-0.0974	
15.00	8.3774	0.860	-0.2324	
15.00	9.7411	1.000	0.2906	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4247
2	-0.3257
3	-0.2811
4	-0.2362

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.3179	
17.40	6.1018	0.540	-0.0505	0.0872
17.40	7.0058	0.620	-0.0443	0.0919
17.40	8.1358	0.720	-0.0821	0.0972
17.40	9.7177	0.860	-0.2362	0.1072
17.40	11.2997	1.000	0.2719	
19.80	6.9435	0.540	-0.0949	0.0828
19.80	7.9721	0.620	-0.0557	0.0907
19.80	9.2580	0.720	-0.0902	0.0844
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.0865	
0.54	4.6290	13.200	-0.0453	0.1043
0.54	5.2602	15.000	-0.0353	
0.54	6.1018	17.400	-0.0505	0.0872
0.54	6.9435	19.800	-0.0949	0.0828
0.62	4.3484	10.800	-0.0974	
0.62	5.3148	13.200	-0.0470	0.1085
0.62	6.0395	15.000	-0.0457	
0.62	7.0058	17.400	-0.0443	0.0919
0.62	7.9721	19.800	-0.0557	0.0844
0.72	5.0498	10.800	-0.1613	
0.72	6.1720	13.200	-0.1281	
0.72	7.0136	15.000	-0.0974	
0.72	8.1358	17.400	-0.0821	0.0972
0.72	9.2580	19.800	-0.0902	0.0844
0.86	6.0317	10.800	-0.2500	
0.86	7.3721	13.200	-0.2365	0.1215
0.86	8.3774	15.000	-0.2324	
0.86	9.7177	17.400	-0.2362	0.1072
1.00	7.0136	10.800	0.2658	
1.00	8.5722	13.200	0.3315	0.3845
1.00	9.7411	15.000	0.2906	
1.00	10.5204	16.200	0.3179	
1.00	11.2997	17.400	0.2719	
ETA	Y	X	CP-UP	CP-LOW

TABLE AIV.- Continued

(c) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
13	304	1.62	6.020	0.0	454.7	1083.7	247.5	1.997

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1251
10.80	3.7873	0.540	-0.1453	
10.80	4.3484	0.620	-0.1600	
10.80	4.7692	0.680	-0.1812	
10.80	4.9095	0.700		0.1549
10.80	5.0498	0.720	-0.2421	
10.80	6.0317	0.860	-0.3115	
10.80	6.4876	0.925	-0.3131	0.2084
10.80	6.8032	0.970	-0.3170	
10.80	6.9084	0.985	-0.3067	0.3167
10.80	7.0136	1.000	0.2021	
13.20	3.4289	0.400	-0.0695	0.1245
13.20	3.9432	0.460	-0.0914	
13.20	4.6290	0.540	-0.0864	0.1437
13.20	4.9719	0.580	-0.0981	
13.20	5.3148	0.620	-0.1019	0.1505
13.20	5.6576	0.660	-0.1584	
13.20	5.8291	0.680	-0.1671	
13.20	6.0005	0.700	-0.1860	0.1566
13.20	6.1720	0.720	-0.2412	
13.20	6.3434	0.740	-0.2770	
13.20	6.6863	0.780	-0.3049	0.1676
13.20	7.0292	0.820	-0.3106	
13.20	7.3721	0.860	-0.3087	0.1767
13.20	7.7150	0.900	-0.3103	0.1976
13.20	7.9293	0.925	-0.3131	0.2176
13.20	8.1436	0.950	-0.3261	0.2464
13.20	8.3150	0.970	-0.3173	0.2666
13.20	8.4436	0.985	-0.3051	0.3308
13.20	8.5293	0.995	-0.1320	0.3953
13.20	8.5722	1.000	0.2875	0.3563
15.00	5.2602	0.540	-0.0753	
15.00	6.0395	0.620	-0.0935	
15.00	7.0136	0.720	-0.2188	
15.00	8.3774	0.860	-0.3067	
15.00	9.7411	1.000	0.2346	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4307
2	-0.3555
3	-0.3033
4	-0.2395

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2678	
17.40	6.1018	0.540	-0.0827	0.1333
17.40	7.0058	0.620	-0.0941	0.1383
17.40	8.1358	0.720	-0.1981	0.1440
17.40	9.7177	0.860	-0.3101	0.1647
17.40	11.2997	1.000	0.2130	
19.80	6.9435	0.540	-0.1220	0.1270
19.80	7.9721	0.620	-0.1010	0.1370
19.80	9.2580	0.720	-0.1891	0.1344
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1453	
0.54	4.6290	13.200	-0.0864	0.1437
0.54	5.2602	15.000	-0.0753	
0.54	6.1018	17.400	-0.0827	0.1333
0.54	6.9435	19.800	-0.1220	0.1270
0.62	4.3484	10.800	-0.1600	
0.62	5.3148	13.200	-0.1019	0.1505
0.62	6.0395	15.000	-0.0935	
0.62	7.0058	17.400	-0.0941	0.1383
0.62	7.9721	19.800	-0.1010	0.1344
0.72	5.0498	10.800	-0.2421	
0.72	6.1720	13.200	-0.2412	
0.72	7.0136	15.000	-0.2188	
0.72	8.1358	17.400	-0.1981	0.1440
0.72	9.2580	19.800	-0.1891	0.1344
0.86	6.0317	10.800	-0.3115	
0.86	7.3721	13.200	-0.3087	0.1767
0.86	8.3774	15.000	-0.3067	
0.86	9.7177	17.400	-0.3101	0.1647
1.00	7.0136	10.800	0.2021	
1.00	8.5722	13.200	0.2875	0.3563
1.00	9.7411	15.000	0.2346	
1.00	10.5204	16.200	0.2678	
1.00	11.2997	17.400	0.2130	
ETA	Y	X	CP-UP	CP-LOW

TABLE AIV.- Continued

(c) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
13	307	1.62	7.020	0.0	454.9	1084.3	247.6	1.999

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1394
10.80	3.7873	0.540	-0.1392	
10.80	4.3484	0.620	-0.2155	
10.80	4.7692	0.680	-0.1929	
10.80	4.9095	0.700		0.1719
10.80	5.0498	0.720	-0.2886	
10.80	6.0317	0.860	-0.3358	
10.80	6.4876	0.925	-0.3513	0.2341
10.80	6.8032	0.970	-0.3519	
10.80	6.9084	0.985	-0.3463	0.3417
10.80	7.0136	1.000	0.1590	
13.20	3.4289	0.400	-0.0872	0.1438
13.20	3.9432	0.460	-0.0889	
13.20	4.6290	0.540	-0.1302	0.1609
13.20	4.9719	0.580	-0.1086	
13.20	5.3148	0.620	-0.1397	0.1681
13.20	5.6576	0.660	-0.2145	
13.20	5.8291	0.680	-0.2480	
13.20	6.0005	0.700	-0.2320	0.1796
13.20	6.1720	0.720	-0.2650	
13.20	6.3434	0.740	-0.2876	
13.20	6.6863	0.780	-0.3194	0.1911
13.20	7.0292	0.820	-0.3342	
13.20	7.3721	0.860	-0.3415	0.2039
13.20	7.7150	0.900	-0.3404	0.2283
13.20	7.9293	0.925	-0.3451	0.2461
13.20	8.1436	0.950	-0.3607	0.2646
13.20	8.3150	0.970	-0.3549	0.3038
13.20	8.4436	0.985	-0.3357	0.3590
13.20	8.5293	0.995	-0.1720	0.4143
13.20	8.5722	1.000	0.2621	0.3270
15.00	5.2602	0.540	-0.0932	
15.00	6.0395	0.620	-0.1608	
15.00	7.0136	0.720	-0.2789	
15.00	8.3774	0.860	-0.3369	
15.00	9.7411	1.000	0.2051	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4401
2	-0.3703
3	-0.3147
4	-0.2457

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2476	
17.40	6.1018	0.540	-0.1263	0.1532
17.40	7.0058	0.620	-0.1114	0.1613
17.40	8.1358	0.720	-0.2697	0.1671
17.40	9.7177	0.860	-0.3401	0.1933
17.40	11.2997	1.000	0.1821	
19.80	6.9435	0.540	-0.1368	0.1499
19.80	7.9721	0.620	-0.1195	0.1619
19.80	9.2580	0.720	-0.2527	0.1621
X	Y	ETA	CP-UP	CP-LOW
ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1392	
0.54	4.6290	13.200	-0.1302	0.1609
0.54	5.2602	15.000	-0.0932	
0.54	6.1018	17.400	-0.1263	0.1532
0.54	6.9435	19.800	-0.1368	0.1499
0.62	4.3484	10.800	-0.2155	
0.62	5.3148	13.200	-0.1397	0.1681
0.62	6.0395	15.000	-0.1608	
0.62	7.0058	17.400	-0.1114	0.1613
0.62	7.9721	19.800	-0.1195	0.1621
0.72	5.0498	10.800	-0.2886	
0.72	6.1720	13.200	-0.2650	
0.72	7.0136	15.000	-0.2789	
0.72	8.1358	17.400	-0.2697	0.1671
0.72	9.2580	19.800	-0.2527	0.1621
0.86	6.0317	10.800	-0.3358	
0.86	7.3721	13.200	-0.3415	0.2039
0.86	8.3774	15.000	-0.3369	
0.86	9.7177	17.400	-0.3401	0.1933
1.00	7.0136	10.800	0.1590	
1.00	8.5722	13.200	0.2621	0.3270
1.00	9.7411	15.000	0.2051	
1.00	10.5204	16.200	0.2476	
1.00	11.2997	17.400	0.1821	
ETA	Y	X	CP-UP	CP-LOW

TABLE AIV.- Continued

(c) Continued

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
13	312	1.62	8.020	0.0	454.4	1083.0	247.3	1.996

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1603
10.80	3.7873	0.540	-0.1399	
10.80	4.3484	0.620	-0.2834	
10.80	4.7692	0.680	-0.2262	
10.80	4.9095	0.700		0.1931
10.80	5.0498	0.720	-0.2949	
10.80	6.0317	0.860	-0.3527	
10.80	6.4876	0.925	-0.3798	0.2673
10.80	6.8032	0.970	-0.3885	
10.80	6.9084	0.985	-0.3788	0.3673
10.80	7.0136	1.000	0.1249	
13.20	3.4289	0.400	-0.1062	0.1618
13.20	3.9432	0.460	-0.0996	
13.20	4.6290	0.540	-0.1838	0.1816
13.20	4.9719	0.580	-0.1569	
13.20	5.3148	0.620	-0.1691	0.1897
13.20	5.6576	0.660	-0.2482	
13.20	5.8291	0.680	-0.2869	
13.20	6.0005	0.700	-0.2923	0.2008
13.20	6.1720	0.720	-0.3103	
13.20	6.3434	0.740	-0.3133	
13.20	6.6863	0.780	-0.3372	0.2178
13.20	7.0292	0.820	-0.3492	
13.20	7.3721	0.860	-0.3581	0.2328
13.20	7.7150	0.900	-0.3698	0.2575
13.20	7.9293	0.925	-0.3740	0.2810
13.20	8.1436	0.950	-0.3905	0.3061
13.20	8.3150	0.970	-0.3811	0.3402
13.20	8.4436	0.985	-0.3684	0.3943
13.20	8.5293	0.995	-0.2106	0.4363
13.20	8.5722	1.000	0.2359	0.3096
15.00	5.2602	0.540	-0.1272	
15.00	6.0395	0.620	-0.2067	
15.00	7.0136	0.720	-0.3159	
15.00	8.3774	0.860	-0.3572	
15.00	9.7411	1.000	0.1721	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4367
2	-0.3851
3	-0.3131
4	-0.2514

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2174	
17.40	6.1018	0.540	-0.1292	0.1769
17.40	7.0058	0.620	-0.1355	0.1831
17.40	8.1358	0.720	-0.3144	0.1905
17.40	9.7177	0.860	-0.3575	0.2203
17.40	11.2997	1.000	0.1463	
19.80	6.9435	0.540	-0.1519	0.1700
19.80	7.9721	0.620	-0.1802	0.1802
19.80	9.2580	0.720	-0.2657	0.1834
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1399	
0.54	4.6290	13.200	-0.1838	0.1816
0.54	5.2602	15.000	-0.1272	
0.54	6.1018	17.400	-0.1292	0.1769
0.54	6.9435	19.800	-0.1519	0.1700
0.62	4.3484	10.800	-0.2834	
0.62	5.3148	13.200	-0.1691	0.1897
0.62	6.0395	15.000	-0.2067	
0.62	7.0058	17.400	-0.1355	0.1831
0.62	7.9721	19.800	-0.1802	0.1834
0.72	5.0498	10.800	-0.2949	
0.72	6.1720	13.200	-0.3103	
0.72	7.0136	15.000	-0.3159	
0.72	8.1358	17.400	-0.3144	0.1905
0.72	9.2580	19.800	-0.2657	0.1834
0.86	6.0317	10.800	-0.3527	
0.86	7.3721	13.200	-0.3581	0.2328
0.86	8.3774	15.000	-0.3572	
0.86	9.7177	17.400	-0.3575	0.2203
1.00	7.0136	10.800	0.1249	
1.00	8.5722	13.200	0.2359	0.3096
1.00	9.7411	15.000	0.1721	
1.00	10.5204	16.200	0.2174	
1.00	11.2997	17.400	0.1463	
ETA	Y	X	CP-UP	CP-LOW

TABLE AIV.- Concluded

(c) Concluded

RUN	POINT	MACH	ALPHA	BETA	Q(PSF)	H0(PSF)	P(PSF)	RE/FT(X10-6)
13	313	1.62	9.020	0.0	454.1	1082.2	247.2	1.995

X	Y	ETA	CP-UP	CP-LOW
10.80	2.8054	0.400		0.1761
10.80	3.7873	0.540	-0.1614	
10.80	4.3484	0.620	-0.3081	
10.80	4.7692	0.680	-0.2619	
10.80	4.9095	0.700		0.2151
10.80	5.0498	0.720	-0.3209	
10.80	6.0317	0.860	-0.3727	
10.80	6.4876	0.925	-0.3984	0.2929
10.80	6.8032	0.970	-0.4167	
10.80	6.9084	0.985	-0.4076	0.3877
10.80	7.0136	1.000	0.0986	
13.20	3.4289	0.400	-0.1134	0.1868
13.20	3.9432	0.460	-0.1074	
13.20	4.6290	0.540	-0.2384	0.2069
13.20	4.9719	0.580	-0.2097	
13.20	5.3148	0.620	-0.2137	0.2155
13.20	5.6576	0.660	-0.2738	
13.20	5.8291	0.680	-0.2961	
13.20	6.0005	0.700	-0.2940	0.2274
13.20	6.1720	0.720	-0.3146	
13.20	6.3434	0.740	-0.3367	
13.20	6.6863	0.780	-0.3549	0.2458
13.20	7.0292	0.820	-0.3682	
13.20	7.3721	0.860	-0.3693	0.2612
13.20	7.7150	0.900	-0.3833	0.2864
13.20	7.9293	0.925	-0.3984	0.3063
13.20	8.1436	0.950	-0.4130	0.3303
13.20	8.3150	0.970	-0.4092	0.3609
13.20	8.4436	0.985	-0.3985	0.4104
13.20	8.5293	0.995	-0.2301	0.4467
13.20	8.5722	1.000	0.2146	0.2717
15.00	5.2602	0.540	-0.1715	
15.00	6.0395	0.620	-0.2336	
15.00	7.0136	0.720	-0.3302	
15.00	8.3774	0.860	-0.3721	
15.00	9.7411	1.000	0.1523	
X	Y	ETA	CP-UP	CP-LOW

BASE PRESSURES

PORT	CP
1	-0.4313
2	-0.3795
3	-0.3338
4	-0.2615

X	Y	ETA	CP-UP	CP-LOW
16.20	9.7411	1.000	0.2011	
17.40	6.1018	0.540	-0.1798	0.2022
17.40	7.0058	0.620	-0.2191	0.2103
17.40	8.1358	0.720	-0.3077	0.2189
17.40	9.7177	0.860	-0.3760	0.2504
17.40	11.2997	1.000	0.1230	
19.80	6.9435	0.540	-0.1997	0.1932
19.80	7.9721	0.620	-0.2246	0.2074
19.80	9.2580	0.720	-0.2984	0.2116
X	Y	ETA	CP-UP	CP-LOW

ETA	Y	X	CP-UP	CP-LOW
0.54	3.7873	10.800	-0.1614	
0.54	4.6290	13.200	-0.2384	0.2069
0.54	5.2602	15.000	-0.1715	
0.54	6.1018	17.400	-0.1798	0.2022
0.54	6.9435	19.800	-0.1997	0.1932
0.62	4.3484	10.800	-0.3081	
0.62	5.3148	13.200	-0.2137	0.2155
0.62	6.0395	15.000	-0.2336	
0.62	7.0058	17.400	-0.2191	0.2103
0.62	7.9721	19.800	-0.2246	0.2116
0.72	5.0498	10.800	-0.3209	
0.72	6.1720	13.200	-0.3146	
0.72	7.0136	15.000	-0.3302	
0.72	8.1358	17.400	-0.3077	0.2189
0.72	9.2580	19.800	-0.2984	0.2116
0.86	6.0317	10.800	-0.3727	
0.86	7.3721	13.200	-0.3693	0.2612
0.86	8.3774	15.000	-0.3721	
0.86	9.7177	17.400	-0.3760	0.2504
1.00	7.0136	10.800	0.0986	
1.00	8.5722	13.200	0.2146	0.2717
1.00	9.7411	15.000	0.1523	
1.00	10.5204	16.200	0.2011	
1.00	11.2997	17.400	0.1230	
ETA	Y	X	CP-UP	CP-LOW

APPENDIX B

FORCE AND MOMENT DATA

Force and moment data for the configurations tested are given in this appendix as a function of angle of attack. This compilation also serves as a key to the run schedule that is to be used with the pressure data presented in appendix A.

TABLE BI.- FORCE AND MOMENT RESULTS

[M = 1.62; R = 2.0 × 10^6 per foot]

RUN	PT	ALPHA	CN	CA	CL	CD	CM	CAC	CAB	CDC	CDB	L/D	PT
						NOSE 2, CANARD OFF							
1	15	8.10	0.2552	0.0317	0.2482	0.0673	0.0293	0.0120	0.0067	0.0119	0.0067	3.6854	15
1	16	9.00	0.2971	0.0289	0.2890	0.0751	0.0333	0.0122	0.0068	0.0121	0.0067	3.8496	16
1	17	10.00	0.3434	0.0260	0.3337	0.0853	0.0377	0.0124	0.0069	0.0122	0.0068	3.9124	17
						NOSE 2, CANARD OFF							
2	36	8.02	0.2507	0.0320	0.2438	0.0667	0.0288	0.0117	0.0067	0.0116	0.0067	3.6552	36
2	37	8.02	0.2508	0.0320	0.2439	0.0667	0.0288	0.0117	0.0067	0.0116	0.0067	3.6572	37
2	38	9.00	0.2961	0.0291	0.2879	0.0751	0.0332	0.0119	0.0068	0.0118	0.0067	3.8350	38
2	39	10.02	0.3439	0.0261	0.3341	0.0855	0.0378	0.0122	0.0069	0.0120	0.0068	3.9088	39
2	40	11.01	0.3900	0.0232	0.3784	0.0972	0.0421	0.0124	0.0070	0.0122	0.0069	3.8916	40
2	41	11.98	0.4355	0.0204	0.4218	0.1103	0.0462	0.0127	0.0071	0.0124	0.0070	3.8226	41
						NOSE 1, CANARD OFF							
3	61	8.03	0.2501	0.0190	0.2450	0.0538	0.0262	0.0124	0.0067	0.0123	0.0067	4.5575	61
3	62	9.01	0.2959	0.0161	0.2898	0.0623	0.0304	0.0126	0.0068	0.0124	0.0067	4.6547	62
3	63	9.99	0.3414	0.0132	0.3339	0.0722	0.0345	0.0128	0.0069	0.0126	0.0068	4.6223	63
3	64	11.02	0.3895	0.0102	0.3803	0.0845	0.0388	0.0130	0.0070	0.0128	0.0069	4.5022	64
						NOSE 1, CANARD OFF							
4	83	8.00	0.2485	0.0184	0.2435	0.0528	0.0264	0.0122	0.0067	0.0120	0.0067	4.6110	83
4	84	8.98	0.2940	0.0156	0.2879	0.0613	0.0305	0.0125	0.0068	0.0123	0.0067	4.6988	84
4	85	9.98	0.3397	0.0128	0.3324	0.0714	0.0347	0.0128	0.0069	0.0126	0.0068	4.6529	85
4	86	10.96	0.3856	0.0099	0.3766	0.0830	0.0388	0.0131	0.0070	0.0128	0.0069	4.5379	86
4	87	11.99	0.4338	0.0070	0.4228	0.0970	0.0430	0.0133	0.0071	0.0130	0.0070	4.3605	87
4	88	12.00	0.4342	0.0069	0.4232	0.0970	0.0430	0.0133	0.0071	0.0131	0.0070	4.3614	88
						NOSE 1, CANARD ON CANARD INCIDENCE=0.0							
5	111	7.89	0.2564	0.0197	0.2513	0.0547	0.0349	0.0121	0.0067	0.0120	0.0067	4.5932	111
5	112	8.93	0.3072	0.0165	0.3009	0.0640	0.0410	0.0122	0.0068	0.0121	0.0067	4.7018	112
5	113	9.95	0.3560	0.0135	0.3483	0.0748	0.0467	0.0125	0.0069	0.0123	0.0068	4.6587	113
5	114	10.93	0.4038	0.0106	0.3945	0.0870	0.0522	0.0127	0.0070	0.0125	0.0069	4.5352	114
5	115	11.96	0.4543	0.0077	0.4429	0.1017	0.0579	0.0129	0.0071	0.0127	0.0070	4.3569	115
						NOSE 1, CANARD ON CANARD INCIDENCE=-5.0							
6	125	7.99	0.2553	0.0192	0.2501	0.0545	0.0299	0.0121	0.0067	0.0120	0.0067	4.5875	125
6	126	6.01	0.1603	0.0257	0.1568	0.0424	0.0184	0.0118	0.0066	0.0117	0.0066	3.6996	126
6	127	4.01	0.0649	0.0321	0.0625	0.0366	0.0065	0.0119	0.0068	0.0118	0.0067	1.7083	127
6	128	2.01	-0.0290	0.0386	-0.0304	0.0376	-0.0055	0.0126	0.0070	0.0126	0.0070	-0.8077	128
6	129	9.03	0.3060	0.0158	0.2997	0.0636	0.0359	0.0123	0.0068	0.0121	0.0067	4.7121	129
6	130	10.02	0.3539	0.0126	0.3463	0.0740	0.0415	0.0125	0.0069	0.0123	0.0068	4.6772	130
6	131	11.02	0.4022	0.0095	0.3930	0.0862	0.0471	0.0127	0.0070	0.0125	0.0069	4.5604	131
6	132	12.01	0.4502	0.0064	0.4390	0.0999	0.0526	0.0129	0.0071	0.0126	0.0070	4.3928	132
						NOSE 1, CANARD ON CANARD INCIDENCE=-10.0							
7	142	7.99	0.2491	0.0202	0.2439	0.0546	0.0248	0.0121	0.0067	0.0120	0.0067	4.4635	142
7	143	9.02	0.2992	0.0167	0.2928	0.0634	0.0307	0.0123	0.0068	0.0121	0.0067	4.6171	143
7	144	10.01	0.3467	0.0135	0.3391	0.0735	0.0363	0.0125	0.0069	0.0123	0.0068	4.6113	144
7	145	11.03	0.3962	0.0101	0.3870	0.0857	0.0419	0.0127	0.0070	0.0124	0.0069	4.5157	145
7	146	11.99	0.4430	0.0070	0.4319	0.0989	0.0471	0.0128	0.0071	0.0125	0.0070	4.3679	146
RUN	PT	ALPHA	CN	CA	CL	CD	CM	CAC	CAB	CDC	CDB	L/D	PT

TABLE BI.- Concluded

RUN	PT	ALPHA	CN	CA	CL	CD	CM	CAC	CAB	CDC	CDB	L/D	PT
						NOSE 1, CANARD ON		CANARD INCIDENCE=0.0					
8	188	8.01	0.2626	0.0193	0.2574	0.0557	0.0356	0.0121	0.0067	0.0120	0.0067	4.6188	188
8	189	9.00	0.3105	0.0163	0.3042	0.0646	0.0413	0.0123	0.0068	0.0121	0.0067	4.7067	189
8	190	9.02	0.3115	0.0162	0.3051	0.0648	0.0414	0.0123	0.0068	0.0121	0.0067	4.7062	190
8	191	10.01	0.3592	0.0132	0.3514	0.0755	0.0470	0.0125	0.0069	0.0123	0.0068	4.6570	191
8	192	10.01	0.3555	0.0126	0.3479	0.0743	0.0465	0.0127	0.0069	0.0125	0.0068	4.6843	192
8	193	11.03	0.4085	0.0102	0.3990	0.0882	0.0527	0.0127	0.0070	0.0125	0.0069	4.5232	193
8	194	12.03	0.4569	0.0074	0.4453	0.1025	0.0581	0.0130	0.0071	0.0127	0.0070	4.3455	194
FLAT WING													
						NOSE 1, CANARD ON		CANARD INCIDENCE=0.0					
10	249	-1.95	-0.0898	0.0317	-0.0886	0.0347	-0.0123	0.0115	0.0063	0.0115	0.0063	-2.5549	249
10	250	0.03	-0.0014	0.0313	-0.0014	0.0313	-0.0017	0.0109	0.0062	0.0109	0.0062	-0.0442	250
10	252	2.04	0.0919	0.0310	0.0907	0.0342	0.0097	0.0112	0.0063	0.0112	0.0063	2.6532	252
10	253	3.97	0.1794	0.0305	0.1769	0.0428	0.0202	0.0117	0.0064	0.0117	0.0064	4.1293	253
10	254	6.03	0.2719	0.0302	0.2672	0.0586	0.0313	0.0122	0.0066	0.0122	0.0066	4.5617	254
10	255	6.98	0.3149	0.0300	0.3089	0.0681	0.0363	0.0125	0.0068	0.0124	0.0067	4.5379	255
10	256	8.05	0.3622	0.0298	0.3544	0.0802	0.0417	0.0129	0.0070	0.0128	0.0069	4.4192	256
10	257	9.05	0.4074	0.0296	0.3977	0.0933	0.0466	0.0132	0.0071	0.0131	0.0070	4.2643	257
						NOSE 1, CANARD ON		CANARD INCIDENCE=0.0		MODEL INVERTED			
11	258	-2.03	-0.0929	0.0318	-0.0918	0.0351	-0.0124	0.0113	0.0063	0.0113	0.0063	-2.6167	258
11	259	-0.01	-0.0014	0.0309	-0.0014	0.0309	-0.0014	0.0106	0.0062	0.0106	0.0062	-0.0444	259
11	260	1.99	0.0885	0.0303	0.0873	0.0334	0.0095	0.0101	0.0063	0.0101	0.0063	2.6169	260
11	261	3.96	0.1760	0.0298	0.1735	0.0419	0.0201	0.0106	0.0064	0.0105	0.0064	4.1439	261
11	262	5.96	0.2675	0.0295	0.2630	0.0571	0.0310	0.0111	0.0066	0.0110	0.0066	4.6048	262
						NOSE 1, CANARD ON		CANARD INCIDENCE=-5.0					
12	275	2.02	0.0879	0.0322	0.0868	0.0353	0.0047	0.0111	0.0063	0.0111	0.0063	2.4559	275
12	276	4.02	0.1785	0.0314	0.1758	0.0438	0.0157	0.0116	0.0064	0.0116	0.0064	4.0111	276
12	277	6.03	0.2689	0.0309	0.2641	0.0590	0.0264	0.0122	0.0066	0.0122	0.0066	4.4765	277
12	278	7.04	0.3144	0.0305	0.3083	0.0689	0.0316	0.0125	0.0068	0.0124	0.0067	4.4764	278
12	279	8.04	0.3514	0.0287	0.3439	0.0776	0.0359	0.0131	0.0070	0.0130	0.0069	4.4295	279
12	280	9.04	0.4034	0.0296	0.3937	0.0926	0.0415	0.0130	0.0071	0.0129	0.0070	4.2531	280
12	285	9.02	0.4028	0.0295	0.3932	0.0923	0.0415	0.0130	0.0071	0.0128	0.0070	4.2598	285
						NOSE 1, CANARD ON		CANARD INCIDENCE=-10.0					
13	297	2.00	0.0843	0.0350	0.0830	0.0379	0.0004	0.0112	0.0063	0.0112	0.0063	2.1902	297
13	300	4.02	0.1740	0.0337	0.1712	0.0458	0.0108	0.0116	0.0064	0.0115	0.0064	3.7375	300
13	304	6.02	0.2639	0.0326	0.2590	0.0601	0.0214	0.0121	0.0066	0.0121	0.0066	4.3103	304
13	307	7.02	0.3089	0.0319	0.3027	0.0694	0.0266	0.0124	0.0068	0.0123	0.0067	4.3602	307
13	312	8.02	0.3535	0.0313	0.3456	0.0803	0.0316	0.0127	0.0070	0.0125	0.0069	4.3045	312
13	313	9.02	0.3988	0.0306	0.3890	0.0928	0.0367	0.0128	0.0071	0.0127	0.0070	4.1927	313
						NOSE 1, CANARD OFF							
14	333	1.99	0.0914	0.0303	0.0903	0.0334	0.0101	0.0113	0.0063	0.0113	0.0063	2.7013	333
14	334	4.00	0.1806	0.0300	0.1781	0.0425	0.0183	0.0117	0.0064	0.0117	0.0064	4.1896	334
14	336	6.03	0.2706	0.0301	0.2660	0.0583	0.0264	0.0122	0.0066	0.0121	0.0066	4.5587	336
14	339	7.03	0.3150	0.0300	0.3090	0.0684	0.0303	0.0125	0.0068	0.0124	0.0067	4.5191	339
14	341	8.02	0.3572	0.0299	0.3495	0.0794	0.0338	0.0127	0.0070	0.0126	0.0069	4.4010	341
14	345	9.03	0.3997	0.0298	0.3901	0.0921	0.0374	0.0128	0.0071	0.0127	0.0070	4.2353	345
RUN	PT	ALPHA	CN	CA	CL	CD	CM	CAC	CAB	CDC	CDB	L/D	PT

APPENDIX C

FORCE AND MOMENT DATA FROM REFERENCE 2

The tables for force and moment data for the wing-alone tests were inadvertently left out of reference 2 and are included herein for completeness.

TABLE CI.- FLAT-WING FORCE AND MOMENT DATA WITH FREE TRANSITION

ALPHA, DEG	CN	CA	CL	CD	L/D	CM	CAC	CAB	CDC	CDB	ALPHA, DEG
					M= 1.60, RE/M= 6.6 MILLION						
-4.25	-.1736	.0135	-.1721	.0264	-6.5304	-.0101	.0113	.0081	.0113	.0081	-4.25
-2.24	-.0787	.0140	-.0781	.0171	-4.5692	-.0017	.0112	.0081	.0112	.0081	-2.24
-1.19	-.0294	.0144	-.0291	.0150	-1.9448	.0028	.0113	.0081	.0113	.0081	-1.19
-.20	.0163	.0147	.0163	.0147	1.1143	.0073	.0113	.0081	.0113	.0081	-.20
.81	.0631	.0151	.0629	.0160	3.9279	.0116	.0113	.0081	.0113	.0081	.81
1.77	.1065	.0149	.1060	.0182	5.8128	.0157	.0114	.0082	.0114	.0082	1.77
3.85	.2041	.0154	.2026	.0291	6.9552	.0247	.0114	.0083	.0114	.0082	3.85
5.78	.2933	.0164	.2902	.0459	6.3289	.0325	.0115	.0083	.0115	.0083	5.78
6.80	.3401	.0169	.3357	.0570	5.8882	.0365	.0116	.0084	.0115	.0083	6.80
7.83	.3864	.0174	.3804	.0699	5.4424	.0402	.0116	.0084	.0115	.0083	7.83
8.78	.4294	.0180	.4217	.0834	5.0587	.0437	.0118	.0084	.0117	.0083	8.78
					M= 1.62, RE/M= 6.6 MILLION						
-4.22	-.1696	.0131	-.1682	.0255	-6.5951	-.0099	.0112	.0081	.0112	.0081	-4.22
-2.22	-.0762	.0136	-.0756	.0166	-4.5672	-.0016	.0111	.0081	.0111	.0081	-2.22
-1.20	-.0277	.0139	-.0274	.0145	-1.8915	.0029	.0112	.0081	.0112	.0081	-1.20
-.20	.0176	.0144	.0176	.0143	1.2338	.0073	.0111	.0081	.0111	.0081	-.20
.78	.0625	.0149	.0623	.0158	3.9434	.0115	.0111	.0081	.0111	.0081	.78
1.80	.1082	.0150	.1077	.0184	5.8657	.0158	.0111	.0081	.0111	.0081	1.80
3.79	.2005	.0155	.1990	.0287	6.9411	.0242	.0112	.0081	.0112	.0081	3.79
5.79	.2920	.0165	.2888	.0458	6.3033	.0322	.0113	.0082	.0112	.0081	5.79
6.80	.3391	.0170	.3347	.0571	5.8640	.0362	.0113	.0082	.0113	.0081	6.80
7.82	.3840	.0175	.3780	.0696	5.4336	.0399	.0114	.0082	.0113	.0081	7.82
8.79	.4274	.0181	.4196	.0832	5.0440	.0433	.0116	.0082	.0114	.0081	8.79
					M= 1.70, RE/M= 6.6 MILLION						
-.18	.0200	.0141	.0201	.0140	1.4328	.0068	.0106	.0076	.0106	.0075	-.18
1.83	.1086	.0144	.1081	.0179	6.0430	.0150	.0106	.0076	.0106	.0076	1.83
3.84	.1967	.0152	.1952	.0283	6.8903	.0229	.0107	.0077	.0106	.0077	3.84
5.84	.2844	.0161	.2813	.0449	6.2590	.0305	.0107	.0078	.0106	.0078	5.84

TABLE CI.- Concluded

ALPHA, DEG	CN	CA	CL	CD	L/D	CM	CAC	CAB	CDC	CDB	ALPHA, DEG
					M= 1.86, RE/M= 6.6 MILLION						
-3.94	-.1385	.0127	-.1373	.0222	-6.1971	-.0082	.0099	.0070	.0099	.0069	-3.94
-1.99	-.0580	.0125	-.0576	.0145	-3.9603	-.0015	.0099	.0070	.0099	.0069	-1.99
-.98	-.0146	.0129	-.0144	.0131	-1.0990	.0024	.0099	.0070	.0099	.0069	-.98
.06	.0299	.0134	.0298	.0134	2.2240	.0066	.0099	.0070	.0099	.0069	.06
1.05	.0711	.0138	.0709	.0151	4.6916	.0104	.0099	.0070	.0099	.0069	1.05
2.06	.1118	.0141	.1112	.0181	6.1505	.0140	.0099	.0070	.0099	.0069	2.06
4.05	.1945	.0151	.1930	.0288	6.7060	.0212	.0099	.0070	.0099	.0069	4.05
6.05	.2727	.0161	.2715	.0449	6.0443	.0282	.0098	.0070	.0098	.0069	6.05
					M= 2.00, RE/M= 6.6 MILLION						
-4.28	-.1433	.0123	-.1420	.0230	-6.1813	-.0091	.0093	.0063	.0093	.0062	-4.28
-2.28	-.0652	.0125	-.0647	.0151	-4.2915	-.0023	.0093	.0063	.0093	.0062	-2.28
-1.29	-.0271	.0125	-.0268	.0131	-2.0446	.0012	.0093	.0063	.0093	.0062	-1.29
-.29	.0119	.0128	.0120	.0128	.9389	.0048	.0092	.0063	.0092	.0062	-.29
.71	.0529	.0133	.0527	.0140	3.7664	.0083	.0093	.0063	.0093	.0062	.71
1.70	.0901	.0138	.0896	.0164	5.4562	.0118	.0093	.0063	.0093	.0062	1.70
3.72	.1676	.0146	.1663	.0255	6.5278	.0186	.0092	.0063	.0092	.0062	3.72
5.69	.2427	.0157	.2400	.0397	6.0509	.0251	.0091	.0063	.0091	.0062	5.69
					M= 1.62, RE/M= 13.1 MILLION						
-.21	.0183	.0158	.0184	.0157	1.1693	.0075	.0095	.0081	.0095	.0081	-.21
1.85	.1132	.0163	.1126	.0200	5.6386	.0161	.0095	.0081	.0095	.0081	1.85
3.84	.2042	.0170	.2026	.0307	6.6070	.0247	.0096	.0081	.0096	.0081	3.84
5.83	.2943	.0180	.2910	.0478	6.0833	.0329	.0097	.0082	.0097	.0081	5.83

TABLE CII.- FLAT-WING FORCE AND MOMENT DATA WITH FIXED TRANSITION

ALPHA, DEG	CN	CA	CL	CD	L/D	CM	CAC	QAB	CDC	CDB	ALPHA, DEG
				M= 1.60, RE/M= 6.6 MILLION							
-.18	.0166	.0186	.0167	.0186	.8995	.0072	.0080	.0081	.0080	.0081	-.18
1.77	.1065	.0183	.1059	.0216	4.9049	.0157	.0082	.0082	.0082	.0082	1.77
3.79	.1999	.0187	.1982	.0318	6.2249	.0244	.0082	.0083	.0082	.0082	3.79
5.80	.2936	.0196	.2901	.0492	5.8943	.0327	.0084	.0083	.0083	.0083	5.80
				M= 1.62, RE/M= 6.6 MILLION							
-1.22	-.0306	.0185	-.0302	.0191	-1.5790	.0027	.0078	.0081	.0078	.0081	-1.22
-.23	.0152	.0185	.0153	.0184	.8312	.0070	.0078	.0081	.0078	.0081	-.23
.79	.0629	.0185	.0627	.0194	3.2375	.0114	.0079	.0081	.0079	.0081	.79
1.78	.1073	.0182	.1067	.0216	4.9488	.0157	.0080	.0081	.0080	.0081	1.78
3.77	.1992	.0187	.1976	.0318	6.2146	.0241	.0080	.0081	.0080	.0081	3.77
5.78	.2913	.0197	.2878	.0490	5.8750	.0323	.0081	.0082	.0081	.0081	5.78
6.78	.3364	.0202	.3317	.0598	5.5468	.0361	.0082	.0082	.0082	.0081	6.78
8.81	.4276	.0213	.4193	.0865	4.8446	.0436	.0085	.0082	.0084	.0081	8.81
				M= 1.70, RE/M= 6.6 MILLION							
-.18	.0185	.0182	.0186	.0181	1.0263	.0065	.0073	.0076	.0073	.0075	-.18
1.83	.1077	.0179	.1071	.0214	5.0127	.0148	.0075	.0076	.0075	.0076	1.83
3.81	.1949	.0185	.1933	.0314	6.1540	.0228	.0075	.0077	.0075	.0077	3.81
5.84	.2840	.0195	.2805	.0483	5.8107	.0305	.0076	.0078	.0075	.0078	5.84
				M= 1.86, RE/M= 6.6 MILLION							
-.19	.0194	.0171	.0195	.0170	1.1423	.0057	.0063	.0070	.0063	.0069	-.19
1.81	.1034	.0173	.1028	.0206	4.9927	.0133	.0065	.0070	.0065	.0069	1.81
3.80	.1852	.0183	.1836	.0306	6.0079	.0206	.0066	.0070	.0066	.0069	3.80
5.80	.2665	.0193	.2632	.0462	5.7004	.0278	.0066	.0070	.0066	.0069	5.80
				M= 2.00, RE/M= 6.6 MILLION							
-.30	.0069	.0168	.0070	.0168	.4161	.0040	.0058	.0063	.0058	.0062	-.30
1.72	.0874	.0172	.0868	.0198	4.3762	.0110	.0059	.0063	.0059	.0062	1.72
3.71	.1640	.0181	.1625	.0287	5.6702	.0177	.0060	.0063	.0060	.0062	3.71
5.71	.2409	.0190	.2378	.0428	5.5528	.0244	.0060	.0063	.0060	.0062	5.71

TABLE CIII.- CAMBERED-WING FORCE AND MOMENT DATA WITH FIXED TRANSITION

ALPHA, DEG	CN	CA	CL	CD	L/D	CM	CAC	CAB	CDC	CDB	ALPHA, DEG
					M= 1.60, RE/M= 6.6 MILLION						
5.88	.1851	.0144	.1827	.0332	5.4947	.0219	.0090	.0074	.0089	.0073	5.88
7.90	.2806	.0083	.2768	.0468	5.9204	.0308	.0090	.0074	.0090	.0073	7.90
8.91	.3289	.0051	.3242	.0560	5.7882	.0352	.0091	.0074	.0090	.0073	8.91
9.91	.3765	.0021	.3706	.0669	5.5408	.0395	.0091	.0074	.0090	.0073	9.91
10.89	.4236	-.0008	.4161	.0792	5.2501	.0437	.0091	.0074	.0090	.0073	10.89
11.93	.4734	-.0036	.4639	.0943	4.9182	.0481	.0092	.0074	.0090	.0072	11.93
					M= 1.62, RE/M= 6.6 MILLION						
-4.09	-.2736	.0413	-.2700	.0607	-4.4476	-.0180	.0090	.0072	.0090	.0072	-4.09
-2.03	-.1834	.0364	-.1819	.0429	-4.2376	-.0109	.0089	.0072	.0088	.0072	-2.03
-1.12	-.1434	.0341	-.1427	.0369	-3.8672	-.0077	.0089	.0072	.0089	.0072	-1.12
-.13	-.0978	.0315	-.0978	.0318	-3.0776	-.0039	.0090	.0072	.0090	.0072	-.13
.92	-.0466	.0287	-.0471	.0280	-1.6826	.0005	.0091	.0072	.0091	.0072	.92
1.91	-.0018	.0257	-.0027	.0257	-.1055	.0041	.0090	.0072	.0090	.0072	1.91
3.90	.0942	.0202	.0926	.0266	3.4827	.0131	.0089	.0072	.0088	.0072	3.90
4.91	.1407	.0175	.1387	.0294	4.7124	.0174	.0088	.0072	.0088	.0072	4.91
5.92	.1871	.0146	.1846	.0339	5.4503	.0217	.0088	.0072	.0088	.0072	5.92
7.93	.2813	.0087	.2774	.0474	5.8473	.0304	.0089	.0073	.0088	.0072	7.93
8.93	.3284	.0056	.3235	.0565	5.7224	.0347	.0089	.0073	.0088	.0072	8.93
9.40	.3504	.0042	.3451	.0614	5.6191	.0367	.0089	.0073	.0088	.0072	9.40
9.91	.3748	.0027	.3688	.0672	5.4917	.0389	.0089	.0073	.0088	.0072	9.91
10.91	.4225	-.0003	.4149	.0797	5.2080	.0431	.0090	.0074	.0088	.0072	10.91
11.97	.4726	-.0033	.4630	.0948	4.8852	.0475	.0090	.0074	.0088	.0072	11.97
					M= 1.66, RE/M= 6.6 MILLION						
7.91	.2753	.0092	.2714	.0470	5.7802	.0293	.0085	.0069	.0084	.0068	7.91
8.92	.3222	.0063	.3173	.0562	5.6485	.0335	.0086	.0069	.0085	.0068	8.92
9.93	.3693	.0034	.3632	.0670	5.4180	.0377	.0086	.0069	.0085	.0068	9.93
10.93	.4162	.0006	.4085	.0795	5.1409	.0418	.0086	.0070	.0085	.0068	10.93
11.94	.4631	-.0021	.4535	.0937	4.8383	.0459	.0087	.0070	.0085	.0068	11.94

TABLE CIII.- Concluded

ALPHA, DEG	CN	CA	CL	CD	L/D	CM	CAC	CAB	CDC	CDB	ALPHA, DEG
				M= 1.70, RE/M= 6.6 MILLION							
5.93	.1813	.0148	.1788	.0334	5.3485	.0200	.0083	.0066	.0082	.0066	5.93
7.93	.2707	.0094	.2668	.0467	5.7166	.0282	.0083	.0066	.0082	.0066	7.93
8.94	.3171	.0067	.3122	.0559	5.5873	.0323	.0083	.0067	.0082	.0066	8.94
9.93	.3622	.0040	.3561	.0664	5.3609	.0363	.0083	.0067	.0082	.0066	9.93
10.92	.4070	.0014	.3993	.0784	5.0918	.0402	.0083	.0068	.0082	.0066	10.92
11.93	.4529	-.0012	.4434	.0924	4.7986	.0441	.0084	.0068	.0082	.0067	11.93
				M= 1.86, RE/M= 6.6 MILLION							
7.88	.2505	.0111	.2466	.0454	5.4344	.0251	.0074	.0060	.0073	.0059	7.88
8.90	.2936	.0088	.2887	.0541	5.3351	.0289	.0074	.0059	.0073	.0059	8.90
9.92	.3371	.0064	.3309	.0644	5.1393	.0327	.0073	.0059	.0072	.0058	9.92
10.90	.3785	.0043	.3708	.0758	4.8949	.0363	.0074	.0059	.0072	.0058	10.90
11.89	.4210	.0022	.4115	.0889	4.6286	.0399	.0074	.0059	.0073	.0057	11.89
				M= 2.00, RE/M= 6.6 MILLION							
7.81	.2268	.0127	.2230	.0434	5.1424	.0215	.0068	.0053	.0067	.0053	7.81
8.83	.2674	.0107	.2626	.0516	5.0901	.0251	.0068	.0053	.0067	.0052	8.83
9.79	.3064	.0088	.3005	.0608	4.9451	.0286	.0068	.0053	.0067	.0052	9.79
10.81	.3474	.0068	.3399	.0719	4.7312	.0321	.0068	.0053	.0067	.0052	10.81
11.81	.3889	.0050	.3796	.0845	4.4924	.0357	.0069	.0053	.0067	.0052	11.81

1. Report No.	2. Government Accession No.	3. Recipient's Catalog No.
NASA TP-2249		

4. Title and Subtitle	5. Report Date
BODY AND CANARD EFFECTS ON AN ATTACHED-FLOW MANEUVER WING AT MACH 1.62	February 1984
	6. Performing Organization Code: 505-43-23-03

7. Author(s)	8. Performing Organization Report No.
James L. Pittman, David S. Miller, and William H. Mason	L-15677
	10. Work Unit No.

9. Performing Organization Name and Address	11. Contract or Grant No.
NASA Langley Research Center Hampton, VA 23665	
	13. Type of Report and Period Covered: Technical Paper

12. Sponsoring Agency Name and Address	14. Sponsoring Agency Code
National Aeronautics and Space Administration Washington, DC 20546	

15. Supplementary Notes

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16. Abstract

A wing-body-canard configuration was tested at a Mach number of 1.62 by using both a cambered and an uncambered wing. The cambered wing was designed to produce efficient high lift by using attached supercritical crossflow and was originally tested as an isolated wing. The uncambered wing had the same planform and essentially the same thickness distribution as the cambered wing. The present experiment determined the effects of a body and canards on both wings. The experimental data showed that both the body and the canards influenced the wing pressure levels, but that the attached supercritical crossflow, which was achieved in the isolated cambered-wing test, was maintained in the presence of a body and canards. Tables of experimental pressure, force, and moment data are included, as well as photographs of oil-flow patterns on the upper surface.

17. Key Words (Suggested by Author(s))	18. Distribution Statement
Supersonic flow Maneuver lift Attached flow Body and canard effects	Unclassified - Unlimited Subject Category 02

19. Security Classif. (of this report)	20. Security Classif. (of this page)	21. No. of Pages	22. Price
Unclassified	Unclassified	148	A07

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